

**EFFECT OF TAX MOBILIZATION ON EXTERNAL PUBLIC DEBTS IN
KENYA**

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DECLARATION

Declaration by Candidate

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DEDICATION

I dedicate this research paper to my mum Teresiah Gacheru and my late father Mr. Peter Gacheru Kamau whom I have learnt the basic of life of hard work and persistence.

I also wish to express a word of gratitude to my family and friends for their support to successfully carry on with the course.

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ABSTRACT

The rate at which Kenya is borrowing has been on the rise in the past five years to harmonize the budget deficit resulting from low revenue collection which cannot cater for the desired expansion of the economy and development of infrastructure. Kenya's external public debt is on the rise and portrays a state of distress. There is therefore need to examine whether there are threats of debt overhang in Kenya and how tax mobilization can enhance external public debts servicing. Thus the current study sought to investigate the relationship between of tax mobilization and external public debts in Kenya. The study was guided by tax reforms, tax mobilization strategies and how tax mobilization resources as independent variables and external public debts in Kenya as dependent variable. Four major theories guided the study namely theory of tax smoothing, classical theory of public debt, Keynesian debt theory, and Lerner's theory of functional finance. The study used primary and secondary data. The target population of the study comprised of 1332 domestic taxes department staff in KRA. The study employed stratified random sampling technique in coming up with a sample size of 308 respondents. Descriptive statistics was used in organizing and summarizing the data while regression and correlation analysis were used to test the study hypotheses by establishing the relationships between independent and dependent variable. In regard to primary data the study found that tax mobilization reforms ($\beta_1=0.558$, $p=0.0276<0.05$), tax mobilization strategies ($\beta_2=0.731$, $p=0.285<0.05$) and tax mobilization resources ($\beta_3=-0.620$, $p=0.0249<0.05$) have a significant effect on the level of external public debt in Kenya. The study concluded that the level of external public debt relies on tax mobilization reforms, tax mobilization strategies and tax mobilization resources. However, in regard to secondary data the results of the regression analysis revealed that the tax mobilization resources were statistically significant ($\beta_0=1.308$, $p=0.357>0.05$). The results imply that for any unit change in tax mobilization resources would lead to a decrease in external public debt by 1.308 units holding all other factors constant. From the findings, the study recommends a multipronged and multiagency approach towards reducing public debt. The Kenyan government should also aim to reduce its recurrent expenditure characterized by huge wage bill that stifles the mobilized revenue.

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OPERATIONAL DEFINITION OF TERMS

Automation Reforms	refers to restructuring of tax processes and concept that describes the process of having machines accomplish tasks previously performed wholly or partly by humans (Musgrave, 2013).
External public debts	is the portion of a country's <i>debt</i> that was borrowed from <i>foreign</i> lenders, including commercial banks, governments, or international financial institutions (Makau, 2008).
Operational Reforms	these are in-house reforms and modifications to the processes which are implemented within the organization to achieve a set goal (Putzel, 2010).
Tax	is sum of money demanded by a government for its support or for specific facilities or services, levied upon incomes, property, sales, etc. (Mahon, 2011).
Tax mobilization	refers to the generation of government revenue from domestic resources, from tax or non-tax sources (royalties, licenses, levies or other income) (Mc-Claskey, 2012)
Tax Reforms	is the process of changing the way taxes are collected or managed by the government and is usually undertaken to improve tax administration or to provide economic or social benefits (Rao, 2014).
Tax resources	refers to the sources that the government gets revenues for taxation (Levi, 2011).

ABBREVIATIONS

AD	Aggregate Demand
ADB	African Development Bank
ADF	African Development Fund
CBK	Central Bank of Kenya
FIRS	Federal Inland Revenue Service
GDP	Gross Domestic Product
GST	General Sale Tax
IDA	International Development Association
IMF	International Monetary Fund
KRA	Kenya Revenue Authority
MEI	Marginal Efficiency of Investment
MTDS	Medium-Term Debt Management Strategy
OLS	Ordinary Least Square
PAM	Proportional Adjustment Method
PAYE	Pay As You Earn
VAT	Value Added Tax
WB	World Bank

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Across the world, government is responsible for providing public services and development within the country. All countries in the world face financial resource constraints and many times results to deficit financing. A budget deficit can be financed mainly through internal or external borrowing, sale of government assets. Sale of government assets is constrained by the stock and attractiveness of the assets; governments therefore resort to domestic borrowing (from the Central Bank, banking system and the private sector) and or foreign borrowing (bilateral or multilateral). Regardless of the nature and source of borrowing, there are associated costs. High debt ratios as a percentage of Gross Domestic Product (GDP) in many developing countries has raised the question of debt sustainability. There are times when debt in some countries reach unsustainable levels precipitating into a debt crisis. Examples include the following: 1930s, 1982 (Mexico, Latin America), 1994 (Mexico), 1997 (Asia, Russia), 2000 (Ecuador, Pakistan), 2001 (Turkey, Argentina). Since the year 2001, the world has not had major debt problem only recently Greece (2010).

Domestic and foreign borrowing to deficit finance can cause huge accumulation of debts. This situation can lead to debt overhang. Debt overhang theory is based on the premise that if debt exceeds a country's repayment ability, the expected debt service is likely to be an increasing function of the country's output level. Thus some of the returns from investing in the domestic economy are effectively taxed away by existing foreign creditors and investment by domestic and new foreign investor is discouraged (Patenio & Tan-Cruz, 2017). Debt servicing, including interest payments and repayments, may also be a real linkage from an indebted country. It takes large benefit

from the domestic economy to transfer to the foreign economy. Therefore, the country foregoes some multiplier accelerator effects. According to Metwally and Tamaschke (2011) this decreases the domestic country's ability to grow its economy and raises its dependence on foreign debt. It is argued that a debt overhang creates adverse incentive effects on the economic growth in the long run.

Over the last few years, Kenya's rising public debt has been a point of discussion in most macroeconomic outlook discussions, with organizations such as the World Bank, the International Monetary Fund (IMF), global credit rating agencies (Moody's Credit Rating Agency, S&P Global Ratings, and Fitch Ratings) and the African Development Bank (AfDB), among others, raising concerns (WB, 2018). Most recently, on 14th February 2018, Moody's downgraded the Kenya's government's issuer rating to "B2" from "B1" previously, based on the observation that as the country's financing needs continue to grow and the government turns to external commercial loans to fund the deficit, more pressure is likely to mount on the government's liquidity and therefore ability to repay arising liabilities in good time. The credit rating agency however retained a "stable" outlook supported by Kenya's strong and relatively diversified economy.

The increased demand for financing infrastructure development, coupled with unpredictable external financing has exerted pressure on Kenya's fiscal position in the last couple of years. Although Kenya's tax revenues have been on upward trend from Kshs 634,903 Million in the year ended June 2011 to Kshs.1.435 Trillion in the year ending June 2018, this is 226% increase on revenue over a period of 8 years. With current revenues for the year 2020 is at Kshs.1.606 Trillion. Consequently, the Kenyan government has a continued to borrow from external partners where the

external public debt was at Kshs.651, 873 Million in the year ending June 2011 to Kshs.2.414 Trillion in the year ending June 2018 which is 370% increase for a period of 8 years.

While too much debt in general is detrimental to a country's ability to repay, external public debt is of more concern as it is exposed to external as well as internal risks. China remains Kenya's largest bilateral lender, having lent Kenya a total of Kshs 520 bn as at December 2017, compared to Japan at Kshs 82.5 bn and France at Kshs 62.3 bn. Foreign debt from commercial banks, which is largely non-concessional, has been rising steadily from a 20.3% contribution in March 2015 to 30.7% in September 2017, and Multilateral foreign debt, which is largely composed of concessional facilities from organizations such as the International Development Association (IDA) and the ADB & ADF, has been on a steady decline, from 48.4% to 36.5% in the same periods.

The recent experience in developed countries, where issues of capacity to rollover debts and weak fiscal positions led to common sovereign downgrades, financial instability and real output losses are worth noting. Due to the effective measures taken to manage debts in Kenya, to some extent Kenya's total public debt to GDP ratio declined from a high of over 66 percent in 2000 to a low of about 43 percent in 2008, largely due to a decline in external debt and an increase in reliance on domestic markets. During this period external debt declined from about 40 percent to 21.6 percent of GDP while domestic debt dropped to about 22 percent from around 24 percent of GDP. In 2008, an upward trend is observed, and by 2014, total gross public debt had risen to more than 55 percent of GDP of the old GDP series. External and domestic debt had reached 26.9 and 31.9 percent of GDP respectively. With the recent

rebasings of the national accounts, total public debt was estimated at 49 percent of GDP in 2014. The increasing financing needs and rise in debt in Kenya, especially over the last decade indicate the need to analyze the debt dynamics.

1.1.1 External Public Debts in Kenya Perspective

Kenya has set herself an ambitious plan of attaining a middle income status by 2030 in its current long-term development blue print. Realization of this plan hinges to a greater extent on heavy investments in hard infrastructure such as roads, railways, energy among others. Kenya, like many other developing countries lack adequate domestic financial resources to undertake these projects because of low levels of savings due to low incomes. In addition, countries at early stages of development have small stocks of capital and are likely to have investment opportunities with rates of return higher than those in advanced economies (Patenio & Tan-Cruz, 2014).

Kenya external public debt has continued to rise over the last 8 years. This is due to the fact that Government debt is one method of financing government operations, though not the only method as Governments can also create money to monetize their debts, thereby removing the need to pay interest (Martin, 2009). But this practice simply reduces government interest costs rather than truly canceling government debt and can result in hyperinflation if used unsparingly. External public debt is created through borrowing including bilateral, multilateral debts and commercial banks.

Kenya external public debt has been on an upward trend and by the end of financial year 2017/2018 debt was is Kshs.2.4 Trillion. Economic theory suggests that reasonable levels of borrowing by a developing country are likely to enhance its economic growth. This is as long as they use the borrowed funds for productive investments and do not suffer from macroeconomic instability, policies that distort

economic incentives, or sizeable adverse shocks; growth should increase and allow for timely debt repayments (Patenio & Tan-Cruz, 2014).

The Kenya Medium-Term Debt Management Strategy (MTDS) was formulated to ensure that public debt is sustainable. Following the implementation of the MTDS, the rising trend in the debt-to-GDP ratio was reversed by June 2003 when it stood at 64 percent of GDP (based on the old series). The proportion of external debt in total public debt dropped to 45.8 percent in June 2014 from 54.7 percent in 2006. This shift towards domestic sources can be partly attributed to unpredictable external financing (Ryan and Maana, 2014). Domestic debt accounted for 56 percent of total public debt in June 2013 compared with 45 percent in June 2006. The share of domestic debt held by banks stood at 46 percent in June 2013 compared with 41 percent in 2006, partly reflecting continued dominance by institutional investors.

The implementation of the MTDS also resulted in a decline in the rate of increase in the tenor of securitized domestic debt. The proportion of securitized debt with a tenor of below 4 years declined from 75 percent to 45 percent between 2005 and 2013. The maturity profile rose from 2.5 years to around 6.25 years. The diversity of the currency structure of the external debt also increased with 33.0 percent of the debt being in Euros, 32.3 percent in US Dollars, 15.1 percent in Japanese Yen, 5.7 percent in Chinese Yuan, 5.5 percent in Sterling Pounds, and 8.4 percent in other currencies (Republic of Kenya, 2013). The diverse currency structure mitigates against exchange rate risk. The default risk on external debt was also low as 75 percent of the debt stock had a maturity of over 10 years, a grant element of 68.6 percent, grace period of 8 years, average maturity of 33.7 years, and average interest rate of 1.2 percent per annum.

1.2 Statement of the Problem

The rate at which Kenya is borrowing has increased in the past five years to harmonize the budget deficit resulting from low revenue collection which cannot cater for the desired expansion of the economy and development of infrastructure (CBK, 2018). For instance, the amount Kenya spent on debt repayments in 2018 is 232% increase compared with the same period in 2017, highlighting the increasing burden on the taxpayer. The Treasury released Ksh. 219,220 Million to settle the country's external loan in the period ending June 2018 compared with only Ksh. 94,180 Million in the same period 2017, (National Treasury, 2018). By comparison, the Kenya Revenue Authority (KRA) only managed to grow tax collection by 105% over the period ending June 2018 to Ksh.1.435 Trillion from Ksh.1.365 Trillion in the year ending June 2017. That means debt servicing consumed 15% of taxes that KRA collected in the year ending June 2018.

The problem of rising external public debt has been pointed out by development partner countries. For instance, recently the Kenyan Government in Partnership with the US Government suspended the construction of Kshs.300 Billion Mombasa – Nairobi expressway for two years over Kenya debt concern. The project modeled to complement the Kshs.327 Billion Standard Gauge Railway was to be undertaken by a US based construction conglomerate. (National Treasury, 2018). The suspension was affected by the US ambassador to Kenya who pointed out that the US government was concerned about Kenya's debt level and therefore had suspended the project which was later funded by the Chinese government to a tune of Kshs.300Billion for the 472 kilometer from Nairobi to Mombasa. Of concern with regards to public debt is whether the Kenyan government has attached some national assets as collateral for non-payment of public debt.

Kenya's external debts is on the rise and portrays a state of distress. Kenya was in breach of nearly all the 'safe' external debt indicators and IMF warned of growing of risk of default. Whereas this is the case, increase borrowing both internally and externally as is happening to Kenya at the moment can lead to debt overhang which is likely to stifle economic growth for which it is meant to stimulate, further plunging the country into poverty traps.

Several studies have been carried out that have emphasized focus on tax mobilization. Some of the studies done includes; Gituku (2013) conducted a study on tax reforms and public loan servicing Kenya. Munene and Nduru (2016) did a study on effect of tax reforms on public debts repayment with focus to Kenya Revenue Authority. Awitta (2010) did a study on effectiveness of tax strategies on public debts servicing at Kenya Revenue Authority in Nairobi while Kairanya (2016) did a study on impact of taxation on debt sustainability in Kenya (1975-2014). No study has been carried out on effect of tax mobilization and external public debts in Kenya. Thus the current study aims to bridge this gap by investigating effect of tax mobilization on external public debts in Kenya.

1.3 General Objective

The general objective of the study was to evaluate the effect of tax mobilization and external public debts in Kenya.

1.3.1 Specific objectives

- i. To determine influence of tax mobilization reforms on external public debts in Kenya.
- ii. To evaluate influence of tax mobilization strategies on external public debts in Kenya.

- iii. To determine influence of tax mobilization resources on external public debts in Kenya.

1.4 Research Hypothesis

H₀₁: Tax mobilization reforms has no significant effect on external public debts in Kenya

H₀₂: Tax mobilization strategies has no significant effect on external public debts in Kenya

H₀₃: Tax mobilization resources has no significant effect on external public debts in Kenya

1.5 Significance of the Study

Kenya has increasingly accumulated both external and domestic debt over the years. The volume of outstanding external obligations is raising concern about the future sustainability. Given the weak institutional and regulatory framework governing debt management, it is important to establish a stable causal relationship between tax collection and external public debt. This will not only provide a more prudent approach to debt management but also help improve the rating of credit worthiness of the country. This study is therefore crucial for the country given that it promotes policies that will ensure country is leveraged towards enhancing economic growth through capital accumulation, domestic investment and productivity growth.

1.6 Scope of the Study

The study was carried out at KRA. The study only concentrated on the objectives highlighted in this project. The duration of this study was carried out within four months from month of June to October. The study focus on the how tax mobilization within 8 years has helped to manage external public debts that is from year 2011 to

2018. The study adopted explanatory research design. The data was collected using both secondary data and primary data.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is aimed at identifying and evaluating opinions, contributions, and findings of various studies that have been done before by different scholars and institutions. This chapter looks at the relevant literature done by past researchers to shed more light on the effect of tax mobilization on external public debt.

2.1.1 External Public Debts

External public debt refers to the total of the nation's debts which covers debts by national governments from external sources indicating how much public spending is financed by external borrowing instead of taxation (Makau, 2008). Debt ratios are commonly used in the analysis of debt sustainability because they provide a relative measure that is standard and comparable. For instance external debt as a percentage of Gross Domestic Product (GDP) shows how much of the wealth created by the nationals of a country compare with the foreign indebtedness.

Ariyo (1997) noted that a fundamental factor causing debt to rise is the reliance on external resources to complement capital formation in the domestic economy. The higher the interest payment and the heavier the deficit on the current account, the heavier the debt burden. Debt sourced finance represents funds with fixed contractual obligations which will require pledging future resources of the nation as collateral. In order to cope adequately in the long run, with servicing requirement, a nation's debt service capacity must grow at a rate higher than that of its financial risk exposure. The non-debt resources on the other hand represent funds flow without fixed or compulsory servicing obligations on the government. The magnitude and regularity of

such resources however, depend on foreign investors' perception of the investment environment in the recipient country.

The external debt can be from bilateral, multilateral or commercial sources. Bilateral sources include government to government while multilateral sources include government to a conglomeration of countries or agencies that have created a pool of resources from which they lend. The debt of a state or provincial government, or local government can also constitute public debt. Multilateral debt could be sourced from financial institutions such as the IMF, African Development Bank and the World Bank among other Institutions (Polly, 2018).

Governments tend to borrow externally because such sources are highly concessional compared to domestic sources. Ajisafe and Gidado (2015) admit that governments can monetize their debts by creating money, to evade payment of interest. This is away governments use to reduce interest costs which and if often used it can lead to hyperinflation. Mutasa (2016) points out that the conventional view that high levels of domestic debt may crowd out the private sector and constrain the scope of countercyclical fiscal policies may result in higher volatility and adverse effects on economic performance.

Servicing of Debt both domestic and foreign present a significant challenge for developing countries that have weaker institutional and regulatory framework for debt management. Gross debt in these countries consists of all liabilities that require payments of interest and principal such as loans, insurance, etc. Smith (2017). The local currency is an issue for developing countries. Omotoye and Eseonu (2016) observed that Two-thirds of the public debt is dubbed in foreign currency. In some cases, lenders have increased interest rates from 12% to 22%. But it is

mismanagement of the government's finances that has pushed these countries over the edge. For example, Gambia's debt ratio increased 18% from 2009 to 2014. With 80% in some countries, it is one of the highest in the region (Adepoju *et. al.* 2014). It is likely to increase based on the boosts in spending by 11%. Slow economic growth in Sub-Saharan Africa has been influenced by the excessive stock of debt that has weakened growth and hampered the socio-economic development Omassoma (2011). Slow growth makes debt servicing difficult and it leads to more borrowing that weakens the economy more.

2.1.2 Concept of Tax Mobilization

The term 'mobilizing' suggests that resources are available, but that they somehow are either not collected fully, or not being used for development, due to specific obstacles or a lack of incentives. The mobilization of domestic resources through reforms in taxation is essential to ensuring sustainable financing of development (McClaskey, 2012). The process of tax mobilization is one of the most powerful lenses in political economy to assess the distribution of power and the legitimacy of the state and of powerful interest groups in civil society. Tax mobilization reflects basic core capacities of states to collect vast amounts of information, which is essential for the formulation of informed policy decisions. The administrative apparatus required to collect and monitor the information required to develop a tax base is one of the most challenging technical and political functions a state can undertake. Thus taxation has always acted as a key incentive for states to create competent bureaucracies.

Tax collection provides a useful lens to assess state authority and capacity to mobilize resources. It also provides a useful objective indicator of governance and legitimacy in the sense that tax collection requires a large degree of voluntary compliance (Levi,

2011). In turn tax-collection capacity and the manner in which taxes are collected can give us important clues as to where polities lie on the spectrum between fragility and resilience (for a discussion of fragility and resilience (Putzel, 2010). There are several components of tax collection that matter.

In most developing countries, for instance, Africa has made some progress in raising non-resource tax revenues over the past two decades. The ratio of tax revenues excluding natural resource taxes and social contributions rose steadily from roughly 11 percent in the early 2000s to around 15 percent in 2015. Administrative and legislative reforms during the 1990s and 2000s have been important in improving revenue collection (Fossat and Bua, 2013; Kloeden, 2015). Reforms included the introduction of value-added tax in several countries, programs to improve taxpayer services, and the roll out of electronic filing systems (OECD, 2017). The creation of semi-autonomous revenue agencies in several countries also improved non-resource tax mobilization (Ebeke et al., 2016). Elsewhere, depending on domestic conditions, countries have removed tax exemptions, revised investment codes, and implemented tax reforms for small businesses (IMF, 2018b). Despite these efforts, the ratio of tax revenues to GDP remains low. At around 15 percent, sub-Saharan Africa has one of the lowest ratios in the world, significantly below the 24 percent average in OECD countries.

2.2 Theoretical Framework

2.2.1 Tax smoothing theory

The theory of tax smoothing is credited to Barro (1979) who encompassed it to fiscal policy. This theory is based on the assumption that a representative agent -a household, who works, consumes and saves in a closed economy with no capital has

the same finite lifetime together with the government. Tax smoothing implies that fiscal deficits and public debt tends to be related to cyclical paths of the business cycles and the state which the economy is at. Specifically, public debt as a ratio of GDP would increase in the presence of an emergency for example, a war or natural disaster say hurricane, famine among others; decrease in horizons characterized with lasting peace; fluctuate during business cycles, that is, increase in a recession and decrease in a recovery towards a boom. In this theory, government (a benevolent social planner maximizes the utility of the representative agent) while spending in every period, face the constraint to keep tax rates constant to avoid distorting the economy since taxes levied on labor income were distortionary as they affected the supply of labor (Alessina & Perroti, 1994). This constraint determined by the inter-temporal budget equating the present value of taxes to the present value of expenditure had a number of implications. It implied that, government would run budget deficits hence resort to borrowing when spending was high while a budget surplus would arise when spending was low.

With this background, assuming the usual property of concavity of the consumer's utility function, it becomes prudent to predict that if government expenditure is high in the present period and low in future then from a balanced budget perspective, tax revenues would have to increase in the present period and decrease in future. But this was not obviously the case here. According to tax smoothing Barro (1979), tax rates must remain unchanged hence government would run a budget deficit today and a budget surplus in future that in their respective present values would counterbalance the budget deficit in the present period. Moreover, from the concept of diminishing marginal utility, such a policy would imply higher welfare gains emanating from lower tax rates in

future and making up for higher tax distortions today. Therefore, tax smoothing was used ideally in minimizing distortions associated with taxes by running budget imbalances where the trajectory of spending is exogenous.

2.2.2 Classical Theory of Public Debt

Classical (1742-1859) debt theory maintained that debt imposed a burden on future generations and very high levels of public debt would create national bankruptcy. It was Buchanan (1958) who made this view clear stating that bondholders acted voluntarily (not sacrificing) choosing from a number of investment opportunities and in future would be better off the moment they are paid the principal together with interest. Hence they did not bear the real burden of debt (burden of debt was a utility loss and not a financial loss). In addition, public debt was accompanied by a cost; interest payment on debt that affected net income negatively therefore reduced future standard of living of a borrower if it was used to finance high present consumption. Buchanan concluded that public debt was immoral since it made future generations pay the principal together with interest towards government expenditure (government spending was seen as unproductive) decisions they did not participate themselves (Templeman, 2007).

Classical economists favored balanced budgets all government expenditure financed by taxation. Running budget deficits and resort to borrowing would be justified only during national emergencies, say war or a natural disaster. Smith (1937), in particular stated that the choice between a tax and public borrowing mattered for capital accumulation. Since to these economists savings was equal to investment, taxation would only reduce household expenditures, new investment and consequently new capital accumulation but would leave the economy's productive capacity and hence

existing capital stock unaltered. In contrast, however, public borrowing would alter productive capacity by diverting savings from private investment which was productive, into unproductive and wasteful uses (Tsoulfidis, 2007). This, simply put was that tax versus debt finance (and their effects on the economy) were and contrary to Barro's (1974) equivalence hypothesis, not equivalent.

Ricardo (1817), whom a lot is credited on developing the Ricardian equivalence, rejected as to whether tax and debt finance were equivalent. Ricardo stated explicitly that these two methods were non-equivalent. In the case of public debt for example, the public did not view it as equal to a tax cut and would tend to save less compared to when a tax was really imposed - therefore reducing the rate of capital formation. In the event that capital accumulation continued to fall, it would do so together with output/income causing revenues to government generally from taxation and also income tax to respond just the same way. In response to falling revenues, government would hike the tax rates attempting to maintain her level of revenues. The outcome was however ugly, accentuating the fall in capital accumulation and consequently breeding national bankruptcy.

To Ricardo therefore, there were only two extreme circumstances under which tax and debt finance were equivalent. First, taxation and borrowing were seen to be only economically equal, that is saying, the same amount of debt would be paid for by taxes, for example in a situation when a budget deficit was financing public investment on infrastructure. Second, taxation and borrowing might be equal only in the short run where they give forth similar outcome. In the long run, however, while taxation would affect current income for which it was not clearly established whether such incomes would be consumed or invested, public borrowing would have

devastating effects on the society's capacity to accumulate capital by reducing savings that could have been directed into productive investments.

It was Mill (1976) who incorporated the idea of crowding out in the classical debt theory. To Mill, if debt was being financed by the surplus that was not needed by the private sector, there was no crowding out. However, crowding out occurred only when the government and the private sector competed for the same funds eventually causing the rates of interest (price of capital) to rise. Rising interest was partly due to increasing rate of profit which happened since borrowing led to falling private capital. Such a fall in private capital would increase competition among workers and decrease their real wages, which was equivalent to an increase in the rate of profits. High rates of interest therefore would cause Investment to fall, and similar trends would be seen in employment and output, chronically. In addition, Mill did not view public debt as having adverse consequences to a nation under three cases: If it was foreign debt, when it created savings that would not have occurred and when borrowing absorbed savings that would have otherwise been invested in unproductive uses or in foreign nations.

2.2.3 Keynesian Debt Theory

Keynes (1936) position was that the economy had various forces and mechanisms within it which were pushing it into disequilibria. Hence contrary to the classical economist's say's law, market forces of supply and demand left alone were unable to deliver an equilibrium with economic and efficiency gains. In particular, the economy was cyclically unstable and therefore under the threat of fluctuations because investment was insufficient and saving was very high. This was accounted for by high uncertainty which rendered market forces insufficient in creating

equilibrium with full employment. The only solution to insufficient investment was to incorporate public investment in its place which would occur through borrowing to finance the budget deficit (Yergin & Stanislaw, 1998). As the effects of deficit spending for instance public works projects filtered through the economy, it increased employment together with the purchasing power. This was what Keynes called the multiplier effect denoted as a reciprocal of $(1-c)$, where c is the marginal propensity to consume (MPC). The concept of the multiplier was that people purchased goods and services from the money they were paid being employed in public works projects hence maintaining or increasing employment.

On the budget position, the central idea of the Keynesian debt theory was simple - there was no need to force the budget to balance. This was like the government was taking with one hand from what it was giving with the other. In fact, doing so when the economy's health was poor was disastrous. For example, contending to balance the budget in a recession would aggravate the recession, increase the pace at which output declined, increase unemployment and consequently create deflation. A recession would need a cut in taxes and an increase in expenditure to stimulate total (or aggregate) demand. Along the same line, during a recovery, government should cut spending and increase taxes to cut total demand and avoid inflation.

Keynesians held that deficits were not supposed to crowd out private investment. To support this idea, they stated that aggregate demand (AD) increased the returns of private investment which at any given rate of interest would lead to an increase in total investment. Therefore, despite the presence of high interest rates, borrowing would foster savings and investment and in the event that consumption increased, it was a result of unemployed resources which was at the heart the theory (Berheim,

1969). However, there was only one condition under which borrowing would crowd out investments when the economy was in full employment. This would create displacement of resources, moving resources from the private into the public sector. Considering availability and private sector demand for these funds, rising public sector (government) demand for the same would push the market rates of interest up eventually crowding out private investment and setting up a recession. Nevertheless, the total effect of interest rates on total investment, all else equal, would be highly dependent on the demand elasticity of investment with respect to rates of interest because investment depends on a number of variables for example the marginal efficiency of investment (MEI) (Malick, 2005).

On debt burden, Keynesians stated that debt did not impose any burden on future generations. As long as the GDP trajectory and speed looked up, the ratio of public debt to Gross Domestic Product (GDP) would diminish at a faster rate. That is, high aggregate demand due to high government expenditure was necessary to diminish debt. Infact debt had its advantages and hence was not a burden. To illustrate this point, Keynesians stated that when government borrowed to finance government expenditure, it was basically utilizing surplus savings held by the public which would be channeled to productive use leading to an increase in national output.

2.2.4 Lerner's Theory of Functional Finance

Lerner (1943), stated that government should borrow only if it was in the social interest for the government to hold more money and the public to hold more government bonds, which was the entire effect of government borrowing-efficient when the public might attempt to lend out their cash leading to low interest rates therefore inducing very high investments that consequently breeds inflation. Lerner's (1943) theory is based on what is called functional finance. Functional finance is judging fiscal policies from their effects on the economy,

irrespective of whether they are sound or unsound. Therefore, government borrowing as well as debt repayment was primarily used to adjust public holdings of money and government bonds. Whenever there was a budget surplus, government could use it to repay part of public debt (if it was desirable to increase money held by the public and reduce unemployment and government bonds). Similarly, a budget deficit would be financed by either borrowing or printing money depending on their desirability in maintaining full employment and preventing inflation. On seignorage, Lerner stated that it was effected only when it was desirable to implement functional finance to spend, lend or repay debt. In the author's definition, printing of money included borrowing from banks and did not affect total money spent. In addition, printing money was conditional on new credit money provision by banks based on their additional government bond holdings.

On interest repayment on debt, functional finance (Lerner, 1943) stated that interest could not be financed solely by taxation unless debt had to be kept at reasonable levels which automatically eliminated other forms of interest finance (seignorage and debt). But there was no sufficient excuse to do this since functional finance kept inflation which was the fear of printing money, on check. Taxation, however, would only be employed when it was desirable to cut spending and prevent inflation. Otherwise, interest could be repaid using additional borrowing as long as the public could (and was willing to) lend. If the public did not wish to lend, they must and would either hoard money or spend. In the case of hoarding, the government was freed from commitments on future interest payments on bonds because the public held currency. This would necessitate printing of money to repay interest and also finance other expenditure needs. When the public spent, there was no need to borrow and taxation would be effected only when high government expenditure became a threat in breeding inflation. Tax revenues were then used to repay the principal debt together with interest.

2.3 Empirical Review

2.3.1 Tax Reforms and External Public Debts

Tax reform's primary potential positive influence on growth comes through investment. Tax reform is the key wellspring of income that the legislature of Kenya uses to give open administrations to its residents. For any prosperous country to develop financially, it requires its national government to collect taxes for reasons, such as, financing of improvement exercises, to cater for costs that intend to keep up a free and reasonable society, and to screen the economy by operationalizing monetary measures. Governments that need to balance performance with the growth and citizen expectations need to increase the country's fiscal depth without experiencing recurring costly overheads (Mahon, 2017).

Bekoe, Danquah and Senahey (2016) conducted a study on tax reforms and external public debts in Ghana. This study uses the proportional adjustment approach to estimate tax buoyancies and elasticities of the overall tax system and of individual taxes for the pre and post-tax reform period over the 1970-2013 period. The results show that in general, tax reforms had a positive influence on the overall external public debts as evidenced in the more than unity buoyancy and elasticity.

Muriithi and Moyi (2013) analyzed tax reforms on the context of public debts repayment in Kenya. The findings suggest that tax reforms had a positive impact on public debts repayment even though the impact of the reforms was not always uniform. The reforms had a bigger impact on direct taxes than on indirect taxes, suggesting that revenue leakage is still a major problem for indirect taxes. The better responsiveness of direct taxes can be attributed to the relative effectiveness of the reforms in direct taxes, which not only made the tax system simpler but also reduced

avenues for evasion and corruption. Such reforms include the introduction of PIN, lower rates, reduction of exemptions and a shift away from multiple rates across many categories.

Gituku (2013) conducted a study on tax reforms and public loan servicing Kenya. This study, sets to establish the implication of tax reforms on revenue productivity for the period 1990-2010 in Kenya using elasticity and buoyancy models. Proportional adjustment method (PAM) was used due to its superiority in adjusting tax revenue figures in order to estimate elasticity. Empirical findings suggest that for the period under study, the Kenyan tax system was in general not productive despite several reforms and measures undertaken. VAT and direct taxes were the mostly affected by reforms as the difference between elasticity and buoyancy was above 0.2.

Munene and Nduru (2016) did a study on effect of tax reforms on public debts repayment with focus to Kenya Revenue Authority. The target population constituted the 126 employees working with the tax collection department. A two stage sampling method was utilized. The purposive sampling was used to get the border posts that were sampled while the simple random sampling was used to get the 56 respondents from the selected border posts. A pilot study was conducted prior to the main study in order to assess the both reliability and validity of the research instrument. The data collected was analyzed with the help of the Statistical Package for Social Sciences software. The predictive effect of customs department structure reforms on tax collection revenue was examined using the simple linear regression. The relationship between customs enforcement reforms and tax revenue collection is a weakly positively correlated but not statistically significant.

Kieleko (2012) conducted a study on tax revenue productivity in Kenya for the period 2001 -2010. The productivity is measured through buoyancy and elasticity. The coefficients are measured through log regression of the taxes to the Gross Domestic Product. The analysis of this study was carried out using the Proportional Adjustment Method (PAM) that was considered appropriate due to its superiority in capturing the effects of tax reforms on discretionary tax measures and tax productivity. The analysis shows that there has been a considerable improvement of the tax revenue productivity and that the reforms made in this period had significant effect on the responsiveness of the tax system. Tax modernization budget rationalization programs had a positive impact on the Kenya's tax productivity especially on income and import taxes. The findings reveal that reforms had greater impact on the elasticity than buoyancy. This implies that the growth in tax revenue during the a-form period was accounted for by the automatic changes rather than the discretionary policy.

Tax reform is the process of changing the way taxes are collected or managed by the government. It may involve the adoption of a Value Added Tax (VAT), the expansion of the VAT, the elimination of stamp and other minor duties, the simplification and broadening of personal or corporate income or asset taxes, or the revision of the tax code to enact comprehensive administration and criminal penalties for evasion (Mahon, 2011). Institutional aspects of tax reform involve the Semi-Autonomous Revenue Authority Model, where traditional line departments are separated from the Ministry of Finance and granted the legal status of semi-autonomous authorities. Tax reform involves broad issues of economic policy as well as specific problems of tax structure design and administration (Musgrave, 2013). At the theoretical level, tax reforms are initiated either following an economic crisis or as a response to international pressure (Mahon, 2011). Based on the reviewed literature above and the

arguments indicated, the following hypothesis is proposed H01: a Tax mobilization reform has no significant effect on external public debts in Kenya

2.3.2 Tax Strategies and External Public Debts

Tax Strategies in revenue collection maximization range from introducing initiatives such as quarterly and annual revenue targets, performance appraisal measures, public education through taxpayer education forums, provision of information services, and the introduction of management information systems department. A proper tax planning strategy is achieved through using the tools that the tax code provides to a business (John & Chapman, 2011). This is more common among community based programs which have little or no ability to generate funding on their own. For example, public sector programs make available revenues among them financial funding for socio-economic development in the society. In addition, Diana (2015) defines revenue mobilization as a means by which revenues both monetary and non-monetary revenues are brought together either externally or internally to aid organization activities. Developing effective ways in revenue collection has been an important matter in tax and revenue collection. The advent of new instruments to help businesses work more efficiently affects the way taxes and revenues are collected.

Awitta (2010) did a study on effectiveness of tax strategies on public debts servicing at Kenya Revenue Authority in Nairobi. The purpose of this study was to examine the effectiveness tax strategies at KRA in Nairobi. The descriptive research design will be adopted with focus on quantitative characteristics and status of revenue collection strategies at KRA with regard to enhancements of revenue collection. The target population will be staff of KRA in Nairobi and its branches. Although there were 3,905 staff, the focus will be senior tax officers who are 1,540. Stratified random

sampling technique will be used to select a sample of 154 staff. In this study, data will be collected using a questionnaire which will be administered through face to face interviews. The study found out that it have brought results based management in KRA and it have also increased revenue collection hence it should be embraced in all departments so as to maximize on productivity and performance. The study also found out that staff trainings have enhanced employees' skills, knowledge and professional capacity. However, employees have not fully applied their knowledge. Moreover, the staff trainings have not fully enhanced their level of understanding of various technical matters.

Biwott (2017) did study on revenue mobilization approaches and their influence on County socio-economic development in North rift region. The study was guided by Resource-Based Theory of competitive advantage which states that the ability of institution's resources and capabilities to support a sustainable competitive advantage is essential to the time frame of the institutions' strategic planning process and the sequential theory of decentralization. The study adopted a descriptive survey research design. The study targeted a population of 1640 employees from revenue and planning departments in 6 County Governments in North Rift region. Random and stratified sampling techniques were used to get a sample size of 321 respondents. Instruments of data collection included questionnaires and Interview guides. Split half method was used to test reliability of research instruments. Data was analyzed using both descriptive and inferential statistics. Qualitative data was analyzed using thematic analysis. Data was presented using Tables, charts and graphs.

The study findings revealed that most of the approaches for revenue mobilization in County governments are business licenses (96.2%), natural resource rents (60.3%), market dues and fees (55.1%). This informs that business licenses, market dues and fees are highly effective in revenue generation to the County governments. The regression analysis revealed that, there was a statistically significant relationship between business licenses, loans and parking fees and County development. In addition, training has a significant effect on socio-economic development ($\beta= 0.644$, $p<0.05$), technology in revenue mobilization ($\beta= 0.596$, $p<0.05$), stakeholder collaboration ($\beta=0.435$, $p<0.05$) revenue mobilization infrastructure ($\beta= 0.461$, $p<0.05$) all have a significant and positive effect on socio-economic development.

KRA facilitates trade through the various mechanisms put in place such as automation of processes to enhance efficiency. It has taken an integrated and comprehensive approach aimed at improving its systems, especially in customs operations. Modernization of tax collection strategies aims at harmonization of systems and compliance with agreed international commitments, ensuring transparency and predictability by providing basic information such as rules, decisions, consultations and mechanisms, and getting rid of subsidiary customs elements. Such a move accordingly provides adequate appeals processes if so required. Based on the reviewed literature above and the arguments indicated, the following hypothesis is proposed **H₀₂**: Tax mobilization strategies have no significant effect on external public debts in Kenya.

2.3.3 Tax Resources and External Public Debts

Tax resources is defined as the revenues collected from taxes on income and profits, social security contributions, taxes levied on goods and services, payroll taxes, taxes

on the ownership and transfer of property, and other taxes (Hassan, 2015). Personal income tax is a tax on income from individual businesses and wages. At the end of each year, individual owners of businesses lodge income tax returns for their businesses. Income from employment is subject to Pay As You Earn (PAYE). Personal income tax and PAYE are charged at the same graduated scale. The current income tax brackets are: 10 percent on the first Kshs 121,968; 15 percent on the next Kshs 114,912; 20 percent on the next Kshs 114,912; 25 percent on the next Kshs 114,912; and 30 percent on all income over Kshs 466,704 (annually).

Pay As You Earn (PAYE) system was introduced, where tax is charged on employment income and deducted at source, then submitted by the employer to the government. Inheritance tax, a tax charged on the property and assets held by an individual at the time of his death, was also introduced. Capital gains tax was charged on sale of property and gain in value of property. Sales tax was tax on consumption targeting some of the manufactured goods (Aseto, 1980).

King and Rebelo (1990) use a simple endogenous model to show the effect of income taxes on external public debts. They find that, an increase in income tax by 10 percent causes a drop in external public debts by 2percentage. High income taxes will lower the rate of return, which reduce the rate of capital accumulation thus lowering external public debts. Engen and Skinner (1992) using data for 107 countries for the period 1970-1985, find that fiscal policy can be both good and bad external public debts. The distortionary effects of taxes hurt external public debts, while public goods and infrastructure promote debts repayment. Their empirical results reveal a significant and negative impact of fiscal policy on output growth rates in the short-term and the long-term. They also point out that taxes on labor income may impact output growth

differently from corporate, interest and trade taxes. The effect of labor tax on output growth depends on labor supply elasticity in the short term; in the long run the effect is ambiguous

Hassan (2015) did the study on the Role of Value Added Tax (VAT) in the debt repayment of Pakistan. In Pakistan, General Sale Tax (GST) is essentially a Value Added Tax (VAT) and is an important source of revenue for balancing the government budgets. This study examines the extensive literature, concentrating on theory and empirical studies, on the relationship between VAT revenue and public debts repayment. It also evaluates critically the revenue performance of VAT in Pakistan during the period 1991-92 to 2011-12 with a larger focus on empirically estimating the role of VAT revenue in the public debts repayment in Pakistan. Using Ordinary Least Square (OLS) Regression technique, the key outcome from this econometric study shows strong and positive impact of VAT revenue on public debts repayment in Pakistan. One per cent increase in the growth of net VAT revenue causes 0.24% increase in public debts repayment. The results of Granger Causality also confirm the existence of short run relationship between the growth of VAT revenue and public debts repayment in Pakistan.

Kairanya (2016) did a study on impact of taxation on debt sustainability in Kenya (1975-2014). Using the Ordinary Least Square (OLS) method, the study estimated the long-run co-integrating equation. Pre-estimation tests were carried out to determine homoscedasticity, serial autocorrelation, multicollinearity and normality of the variables. The results revealed overall significance of the explanatory variables in explaining GDP. The coefficient of determination showed that 96.8percent of the variation in GDP is explained by indirect taxes, direct taxes, other taxes, interest rate,

foreign direct investment and net exports. The findings further revealed that the coefficient of indirect taxes was negative and individually significant in influencing debt sustainability in Kenya in the short run. On the other hand, the coefficients of FDI and net exports were revealed to be positive and separately significant in affecting the debt sustainability in Kenya in the short run.

Szarowska (2013) conducted a study on effects of income tax on debt sustainability in the European Union. This paper deals with effect of changes in tax burden on economic growth and provides direct empirical evidence in the European Union as financial and economic crisis has impacted also on tax systems. It is used the Eurostat's definition to categorize tax burden by economic functions and implicit tax rates of consumption, labor and capital are investigated. The analysis is based on annual panel data of 24EU member states in a period 1995-2010. Panel regression and Pairwise Granger Causality Tests are used as the main method of research. Results confirm, in line with the theory, statistically significant positive effect of consumption taxes and negative effect of labour taxes on debt suitability. In short-term, there is two-way causality between change of implicit tax rate of consumption and debt suitability and one-way causality between GDP growth and change of implicit tax rate of capital and implicit tax rate of labour.

Ali, Ali and Dalmar (2018) conducted a study on the impact of tax revenues on debt repayment with focus on time series evidence from Kenya. The study examines the effect of tax revenue on debt repayment in Kenya, from 1980 to 2007. In order to attain this objective, relevant time-series secondary data were collected from the Central Bank of Kenya (CBK) Statistical Statement, Federal Inland Revenue Service (FIRS) and previous works done by scholars. The collected data was analyzed using

the ordinary least square method. The results display that tax revenue has a positive significant effect on economic growth. That is, it highlights the channels through which tax revenue impacts on debt repayment in Kenya. The study also tells that grants and other revenues has no a negative result on debt repayment. However, tax revenues can only appear its full potential on the economy if government can come up with fiscal laws and legislations and support the existing ones in line with macroeconomic objectives, which will check-mate tax offenders in order to minimize evasion, corruption, and tax avoidance. These will get about improvement on the tax management and responsibility and transparency of government officials in the management of tax revenue. Above all, these will increase the tax revenue base with resulting increase in debt repayment.

In a study conducted by Maina (2014) on income taxes and public debt repayment in Kenya. The paper employed an endogenous growth model to study the relationship between income tax and economic performance in Kenya for the period 1970 to 2012. Other variables included for control are consumption tax, foreign trade, government consumption, and population growth rate. Regression model was estimated using OLS and VECM. Both OLS model and VECM revealed a negative relationship between income tax and debt repayment but this relationship was not significant. Consumption tax, foreign trade, and population growth rate do not significantly influence on debt repayment. Government consumption positively influences performance and debt repayment. This paper advocates for increase in efficiency of tax collection. The government should spend the revenue collected on public investment such as infrastructure to increase productivity. This will ensure improved debt repayment.

Kizito (2014) did a study on effects of custom duties on revenue generation in Nigeria (2000-2016). The study examined value added tax and customs duties on revenue generation in Nigeria. Secondary data was sourced from Federal Inland Revenue Service (FIRS) ranging from 2000 to 2016. Autoregressive Distributed Lag (ARDL) and Granger causality tests were used as the estimation techniques. The findings of the study revealed that the F-statistics value was 2.883868 which is lesser than both the lower bound and the upper bound values of 3.79 and 4.85 respectively at the 5percent level of significance which implies that there is no long-run relationship among value-added tax, customs duties and revenue generation. It was equally revealed that there is no causality among value-added tax, customs duties, and revenue generation. The study concluded that value-added tax and customs duties no significant effect on revenue generation and there is no long-run relationship among value-added tax, customs duties and revenue generation in Nigeria during the study period.

Taxation is the key source of revenue that the government of Kenya uses to provide public services to its citizens. Due to its importance, policy debates and decision making relating to tax are a critical issue to the government, public, businesses and the general economy owing to the varied impact that it will have on each of these entities. Tax resource mobilization lies at the heart of economic development in any country. Most developing countries lack the resources to cover a sector where the administrative costs of tax collection tend to be high and where tax productivity of collection is likely to be low. In any given country, tax collection provides a useful (but neglected) lens to assess state authority and capacity to mobilize resources. It also provides a useful objective indicator of sustaining public debts in the sense that tax collection requires a large degree of voluntary compliance. Based on the reviewed

literature above and the arguments indicated, the following hypothesis is proposed

H₀₃: Tax mobilization resources have no significant effect on external public debts in Kenya.

2.4 Conceptual Framework

A conceptual framework is a structure that tries to explain the relationship between variables in the study and shows the relationship by use of diagrams. It is a hypothesized model identifying the concepts under study and their relationship (Mugenda & Mugenda, 2009). The Occurrence or change of independent variables will result in change in the dependent variable. In this study the independent variables are tax reforms, tax strategies and tax resources while dependent variable is sustainability of external public debts. The relationship between the study variables is as illustrated in figure 2.1.

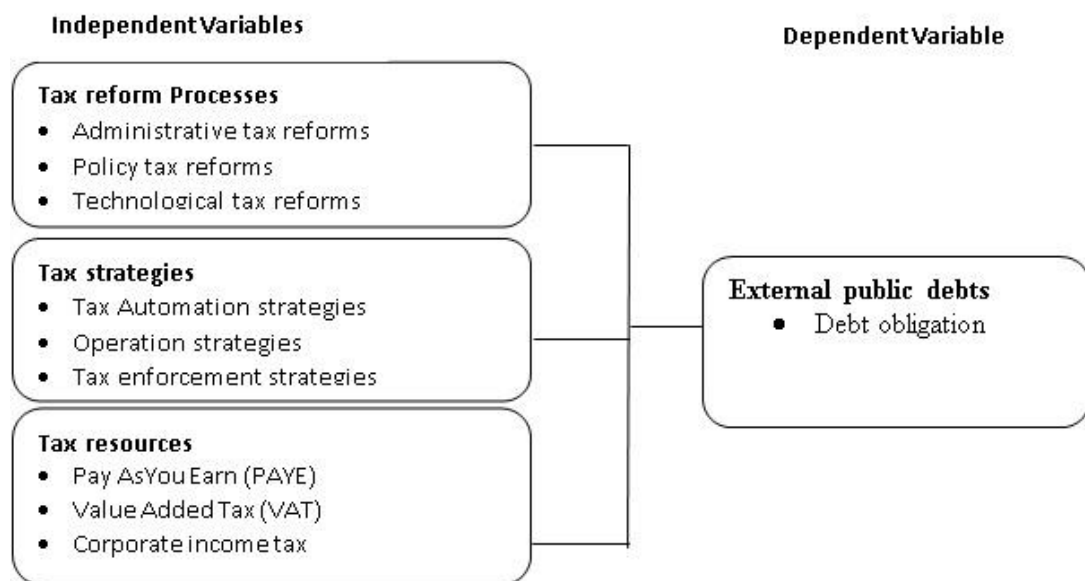


Figure 2.1 Conceptual Framework

Researcher: (2020)

2.5 Critique of Literature

Over the past three decades developing countries have borrowed large amounts of money often at high interest rates. They hoped that these loans would put them on a faster development path through higher investments. But as debt ratios reached very high levels in the 1980s, it became clear that for many of these countries, repayment would not just constrain economic performance but was virtually impossible. Since developing countries are striving for sustainable economic growth, they need to control their escalating fiscal deficit. In order to bring it down, these countries are confronted with the challenges of increasing revenues, curtailing non-essential public expenditures and expanding avenues for new investment that can drive these economies to higher growth while limiting the current account deficit to sustainable levels (Baum et al., 2013).

Tax revenue mobilization is a central concern of economic policymaking in many countries. Experience has shown that while some countries exhibit marked increases in their tax-to-GDP ratios, others show little or no increase over extended periods. Greater domestic resource mobilization is critical for many countries. In particular, in developing countries, enhancing the mobilization of tax revenue is integral for governments to create fiscal space to fund public investment and deliver public services.

Given the daunting challenges some countries face in tackling this prominent policy issue, the paramount question to policymakers is “how” to mobilize sufficient tax revenue. The questions that frequently arise are: “What have other countries done to increase revenue collection?”; “How fast can a country boost tax revenue?” Answers to these questions would provide a useful tool to assist policymakers in their revenue

mobilization efforts. However, the literature does not provide sufficient cross-country evidence on successful tax revenue mobilization, especially for low-income countries (LICs) and emerging markets (EMs) such as Kenya.

2.6 Research Gap

In general, public debt accumulation raises two major issues as regards fiscal deficit finance-debt overhang and loan repayments. Debt overhang is the disincentives to investments due to the threat from high debt so that a lot of resources are channeled to repaying debt. Investors will become skeptical to undertake any investments in a country which might harm future growth prospects. That is, when investment is discouraged/reduced/negatively affected, the main possible outcome is reduced growth both in the present time and in future since a lower capital stock today and in future would reduce the size of the economy from what it would be , all else equal. On the other hand, debt (the principal amount) must be repaid at some time/point as well as interest on debt. In particular, interest payments will either need increase in tax rates hence raising tax burdens, or increase inflation whenever debt monetization is resorted to.

Table 2.1 Research Gap

Name of research paper	Author	Year	Objectives	Findings	Recommendations
Public debt dynamics in Kenya	C. Garcia, L. Ndirangu & I. Maana	2015	The importance of debt composition and structure, exchange rates and fiscal policies for the dynamics of public debt.	Primary fiscal surpluses, real GDP growth and re-evaluation effects contributed to a drastic decline in debt-to-GDP, there was a shift in the contribution of the primary deficit and the real exchange rate towards raising the aggregate debt ratio.	There is need for further examination of the exchange rate appreciation to ensure that the appreciation is the result of productivity gains and not due to undue overvaluation
Factors influencing effective debt management in the county government of Nairobi Kenya	Gitau J.N & Muendo D.	2017	To assess factors influencing effective debt management in the County Governments in Kenya	The County Assembly played an oversight role in the management of debt in the county government; debt management is influenced by politicians, The CG selectively consulted stakeholders before effecting any borrowing and enhancement of institutional framework	The study recommended that it is important to assess the risks associated with various forms of credit prior to embarking on debt procurement
Tax reforms and revenue mobilization in Ghana	W.Bekoe, M.Danquah, W.B,S.Kwabena	2016	To examine Ghana's tax reform programme and investigate whether it has facilitated the revenue mobilization capacity	It show that tax reforms had a positive influence on the overall tax structure	A complete rejuvenation of the industrial sector in order to further broaden the base and improve on the company tax revenue. Additionally, the study recommends a continuous tax administrative restructuring, strengthening and effectiveness to improve tax compliance, reduce evasion and enhance revenue collection.
Effects of public debt on economic growth in Kenya	Wanjuki Njiru	2016	To assess the effect of public debt on economic growth in Kenya	The study confirmed increasing the levels of domestic debt crowd out private investment, in the long run the increased level of external debt will cause debt overhang problem since the total debt service affected the GDP negatively.	This study recommends that public borrowing (government) from international markets and internal borrowing needs to be contained even though there was no problem of debt overhang since it leads to high interest rates and crowding out of the private sector from investment.

Taxation and economic stability	Donald Gilbert		The relationship between state and local tax revenues.	When the taxes falls, the saving decline as revenue producers, because their real base, the national income has fallen	The fiscal policy should embrace not only public deficit spending but a flexible tax program as well. Upper brackets might be raised in depression while the rates applicable to smaller incomes are reduced. Heavy taxation in the boom may turn expansion into contraction. Similarly, investment may be stifled in depression and recovery by onerous taxes on profits
Public debt management on short selling of sovereign debt	Han J.Blommestein	2010	The effect of short selling of sovereign debt on public debt management.	The bans on short selling are effective in achieving their stated objectives; it would seem more compelling to focus on debt instruments issued by financial institutions.	Sovereign debt short sellers as agents of financial market turmoil seems not appropriate, making it unlikely that short selling bans in government securities markets will be effective.
Effects of tax reforms on compliance of small and medium enterprises in Kenya; case of Kisumu town	Ondimu O.M	2015	To assess the effects of tax reforms on compliance of the small and medium-sized enterprises (SMEs) in Kenya, a case of Kisumu town	The study concludes that the tax reforms targeting SMEs should be based on the ability to elicit voluntary compliance from the SMEs in Kenya.	This study recommends that more resources be put on the turnover tax to bring more SMEs who are non-compliant to into tax bracket, SMEs business should embrace online filing and payment, KRA should do more in implementing reforms and for instance publicize of prosecution of non-tax compliant, provide incentive for compliance given, provide opportunity for voluntary compliance. More audits and checks should be carried out among the SMEs.
Tax reforms and revenue mobilization in Kenya	M.Kinyanjui & E.Moyi	2003	To examine the impact of Kenya's tax reforms programme in light of the in-built revenue mobilization capacity of the tax system	The findings suggest that tax reforms had a positive impact on the overall tax structure and on the individual tax handles; the reforms had a bigger impact on direct taxes than on indirect taxes.	The tax authorities should pay more attention to taxpayer education, compliance and tax audits. With complex tax laws, taxpayers have to bear additional costs in order to interpret the law and process tax returns. This tends to give the taxpayers an incentive to evade tax and, therefore, provides a rationale for aggressive taxpayer education.

The effects of tax policy reforms on tax revenue in Kenya	P.Kanyi & Kalui F. 2014	To evaluate the effect of Tax Policy Reforms on Tax Revenue in Kenya.	The study has revealed evidence in significant increase in total tax revenue attributed to tax reforms in Kenya. Therefore, to build and maintain the culture of sustainable development, there is need for a review and restructure of the nation's tax policy and administrative system.	To encourage voluntary compliance, tax policy formulation should be after due consultation with all the stakeholders. The gap between the citizens and the government is so wide that policies are made and forced down on the people without due consultation. For there to be a good tax administration, tax policies must be welcomed by all the citizens.
Debt sustainability and the optimal debt in Kenya	Martin Wafula 2010	To investigate if the government is in a position to generate enough revenue in the future to pay off the debts that it has and is still accumulating given the current economic slowdown in Kenya	The findings indicate that debt has been sustainable The onus is therefore on policy makers to extend this favorable track record into the future This study also establishes that the government's objective to achieve a 10% economic growth is possible if the government observes fiscal discipline by ensuring that the debt to GDP ratio is 35.2%	This study cautions that public borrowing from the domestic market needs to be contained even if debt looks sustainable since it leads to high interest rates and crowding out of the private sector from investment. The reduction in the domestic real interest rates will encourage private sector investment and thereby substantially contribute to real growth. It also recommends that the government should consider relying more on concessional loans and grants in order to contain high foreign debts being contracted. The study recommends increased tax collection and per capita tax burden to reduce the government's debt and consolidate the fiscal stance so as to retain debt sustainability.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter is of interest to the research design and methodology that was used in the study. The sub headings covered in this chapter are; design of the study, sampling design and population, methods of data collection, data analysis and presentation.

3.2 Research Design

A research design refers to plan that guide a researcher on how to organize the research activities (Bryman & Bell 2011). A research design presents a framework or arrangement of action for a study. The study adopted explanatory research design. Kothari (2008) noted that deploying an explanatory research design enables a researcher to respond to the ‘what’ question. On the other hand, McNeil (2018) asserts that although explanatory research design inclines, majorly, towards qualitative techniques, quantifiable data is viable as well. Explanatory research design comprises of interviews with an audience of interest on a specific topic. Given that the researcher, herein, intends to generalize the research outcomes to a larger population, this research design best fits the purpose. The descriptive design allows the researcher to gather qualitative data which is quantitatively analyzed using descriptive and inferential statistics. Maxwell, (2013) observes that an explanatory research designs used when data is collected to describe persons, organizations, settings or phenomena.

3.3 Population and Sampling Design

3.3.1 Population of the Study

A population is the entire gathering of elements about which extrapolations are made or is a group of the variables that is being studied (Cooper, 2003). The population

under this study comprised of 1,332 domestic taxes department staff in KRA. These are staff mandated the responsibility to collect/reconcile revenues collected and that to clear public debts to foreign creditors.

3.3.2 Sampling Design

Sampling involves the selection of the population that entails a study sample (Kothari, 2004). Stratified random sampling was applied since the research elements could equally be included in the study. The study employed stratified random sampling technique in coming up with a sample size of 308 respondents from a total of specific stations in KRA, this represents 23% of the total population. Mugenda and Mugenda (2013) states that 10%-40% of the accessible population is a representative sample. Stratified random sampling was used to stratify the sample of KRA officers. Proportionate random sampling was further used to select the sample from each stratum and then convenient sampling finally was used to select the sample.

3.3.3 Sampling Frame

Stratified sampling techniques was employed to select a sample from respondents from the stations targeted by this study. The method was chosen because the target population of this study is classified into strata. Table 3.2 shows the sampling frame of the study.

Table 3.1: Sampling Frame

Stations	Population
Headquarter	827
North of Nairobi	105
West of Nairobi	167
East/South of Nairobi	233
Total	1332

Source: KRA Human Resource Department

3.3.4 Sample Size

Garson (2012) defines a sample size as a representation of a subset of sampling units from a population. Taking into consideration the nature of the study and the desired level of precision, confidence level and the variability within the population of interest, Yamane's formula was used in getting the sample size. This was applied to get high quality data collection that will generate more reliable and valid results. For this study a sample size (n) of 308 was selected to arrive at with the help of Yamane's formula (1967) at 95% level of confidence, computed as below;

$$n = \frac{N}{(1 + Ne^2)}$$

Where,

n – number of samples

N – total population

e – tolerance error, with a confidence level of 95%

Using this formula therefore;

$$n = \frac{1332}{(1 + 1332 \times 0.05^2)}$$

$$n = 308$$

The sample of 308 respondents was involved in the actual study. This is as detailed in the Table 3.2. The sample size was then divided into four strata; Headquarter, North of Nairobi, West of Nairobi and East/south of Nairobi using proportional strata allocation to obtain proportional representation, which forms the focus of this study as shown in table below.

Table 3.2: Sample Size

Stations	Population	Proportion of sample size	Sample size
Headquarter	827	62%	190
North of Nairobi	105	8%	25
West of Nairobi	167	12.6%	40
East/South of Nairobi	233	17.4	53
Total	1332	100	308

Source: Researcher 2020

3.4 Pilot Test

In the context of this study, the pilot test was conducted on sixty-one (20%) of the intended sample size of three hundred and eight (308) respondents. The respondents selected for the pilot exercise did not form part of the population under study. The information obtained was then subjected to descriptive and inferential statistical data analysis techniques. Questions not well captured were adjusted accordingly.

3.4.1 Reliability of the Questionnaire

The reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. The Alpha (α) measures internal consistency by establishing if certain item measures the same construct. Cronbach's Alpha was established for every objective in order to determine if each objective would produce consistent results should the research be done later on. The findings of the pilot study show that constructs on Tax reforms had the highest reliability ($\alpha=0.814$), followed by Tax strategies with ($\alpha=0.802$), construct of external public debts ($\alpha=0.783$),

whiletax resources had the least ($\alpha=0.584$). This illustrates that all the four variables were reliable as their reliability values exceeded the prescribed threshold of 0.7 (Nunnally, 1978).

Table 3.3: Reliability of the Questionnaire

Variables	Cronbach's Alpha (α)	Number of Items
Tax reforms	.814	6
Tax strategies	.802	6
Tax resources	.584	6
External public debts	.783	6

3.4.2 Validity of the Questionnaire

Validity of a study refers to the most accurate approximate of how true or false a specific inference, suggestion, interpretation or conclusion is (Cook and Campbell, 1979). The validity of findings has traditionally been understood to mean the 'correctness' or 'precision' of a research study (Lewis and Ritchie, 2003). Validity was ensured in this research through guaranteeing the consistency of the research instrument employed. Data was gathered from all relevant people within the department at the various levels of hierarchy. Data collected was triangulated to ensure they match the conclusions and that which it was intended to measure.

3.5 Data Collection Methods

The nature of data that was used in this study includes primary data. The data was obtained using questionnaires and distributed to KRA staff via hand delivery. The questionnaires had questions framed in structured (closed) and open ended. The questionnaires were divided into two parts, the first part contained demographic information and the second part addressed specific objectives of the study and the

main objective of the study. Respondents were asked to rank the factors in part two as to how they agreed or disagreed with the statements. Secondary data will be sourced from KRA reports, National Treasury and Kenya national bureau of statistics. The data collected information pertaining to how tax mobilization enhances sustainability of external public debts.

3.6 Data Collection Procedure

The researcher involved two research assistants to help in distribution of questionnaires to the targeted respondents. The questionnaires were administered through drop and pick later method.

3.7 Data Analysis and Presentation

The study generated both qualitative and quantitative data. Quantitative data was coded and entered into Statistical Packages for Social Science (SPSS Version 20) and analyzed using descriptive statistics. Qualitative data was analyzed based on the content matter of the responses. Responses with common themes or patterns were grouped together into coherent categories. Descriptive statistics involved use of absolute and relative (percentages) frequencies, measures of central tendency and dispersion (mean and standard deviation respectively). Quantitative data was presented in tables, graphs and explanation was done in prose. In addition, the researcher used multiple regression analysis to establish the strength of the relationship between the dependent and independent variables.

The regression equation used as shown below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \alpha$$

Where: Y is the dependent variable (sustainability of external public debts),

β_0 is the regression coefficient,

β_1 , β_2 , β_3 and β_4 are the slopes of the regression equation,

X_1 is the tax reforms

X_2 is the tax strategies,

X_3 is tax resource,

α is an error term normally distributed about a mean of 0 and for purpose of computation, the α is assumed to be 0.

3.7.1 Normality Test

As per to the central limit theorem; if the sample data are almost normal, then the sampling distribution should be normal; in big samples greater than 30, the sampling distribution should too be normal, irrespective of the data shape and the means of random samples from any distribution also had usual distribution. In this study, the researcher illustrated as to whether data shows a serious deviation from the normal.

3.7.2 Multicollinearity Test

Multicollinearity test was done to ensure that none of the variable is highly correlated with each other. This was established by the Variance of Inflation Factor (VIF).

3.7.3 Heteroscedasticity

This occurs more frequently where datasets have a big range between the largest and least observable values. There are numerous reasons why heteroscedasticity occurs; the most common reason one because error variance varies proportionally with a factor. This factor might affect a variable in the model. In some cases, the variance rises in the same proportion with this factor but remains unchanged as a percentage.

3.8 Ethical Considerations

While conducting the study, the researcher ensured that research ethics are observed. Participation in the study was voluntary. Privacy and confidentiality was observed. The objectives of the study were explained to the respondents with an assurance that the data provided will be used for academic purpose only.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND PRESENTATION

4.1 Introduction

This chapter presents the data analysis, presentation and interpretation of study results on the effect of tax mobilization and external public debts in Kenya. Therefore, the chapter is structured into data analysis, presentation and interpretation of the study results.

4.1.1 Response Rate

The study sample size consisted of 308 respondents from the four KRA stations Headquarter, North of Nairobi, West of Nairobi and East/south of Nairobi. However, out of the 308 questionnaires that were administered, the researcher was able to obtain only 240 fully filled questionnaires which represented a response rate of 78%. The study response rate was deemed sufficient for undertaking the study analysis since it agrees with Mugenda and Mugenda (2003) who argues that for generalization a response rate of 50% is adequate for analysis and reporting, 60% is good and a response rate of 70% and over is excellent. This high response rate can be attributed to the data collection procedures, where the researcher dropped the questionnaires and picked them at a later date which allowed respondents sufficient time to fill them.

Table 4.1: Response Rate

Response	Frequency	Percentage
Filled in Questionnaires and Returned	240	78
Questionnaires not Returned	68	22
Total	308	100

4.2 Respondents Demographic Information

The study sought to find out the demographic information of the respondents which included their gender, age bracket, highest education level, agency working for as well as their work experience. This was important since it forms foundation under which the study can fairly adopt in coming up with conclusions.

4.2.1 Gender of the Respondents

The study sought to determine the gender distribution of the respondents in order to establish if there is gender balance in the positions indicated. The study results established that, majority 59% of respondents were male while 41% were females as indicated by figure 4.1.

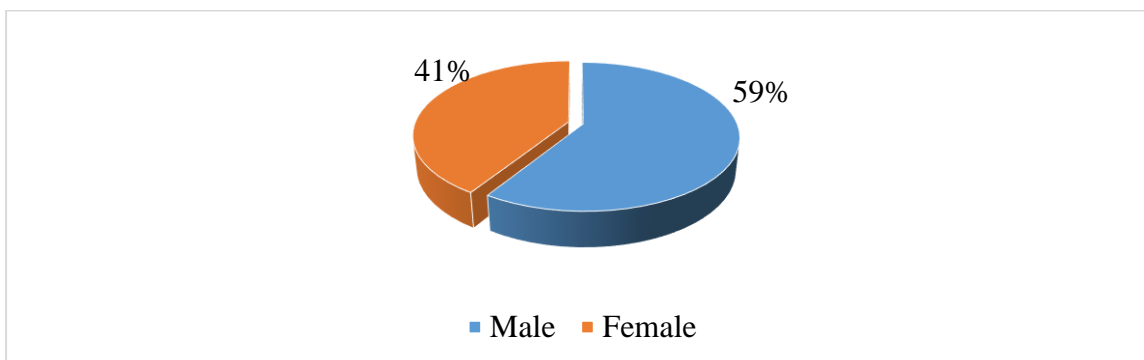


Figure 4.1: Gender of the Respondents

4.2.2 Respondents Age

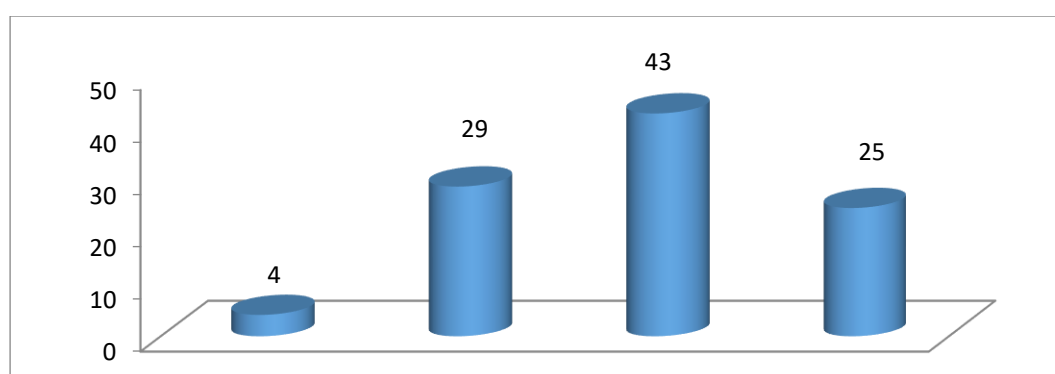
Further, the study aimed to establish the age of respondents. According to the study results obtained, it was found out that 40% of respondents were aged between 31-40 years, 26% were aged between 20-30 years, 24% were aged 41-50 years while 10% were aged above 50 years.

Table 4.2: Respondents Age

Age	Frequency	Percentage
20-30 years	62	26
31-40 years	97	40
41-50 years	57	24
Above 50 years	24	10
Total	240	100

4.2.3 Highest Level of Education

Respondents were also requested to indicate their highest education level they had attained. The study results established that, 52% of the respondents had undergraduate degree as their highest education level, 35% had diploma as their highest education level, 30% had post-graduate degree, 5% had master's degree as their highest education level.

**Figure 4.2: Highest Level of Education**

4.2.4 Station of Working

The study further aimed to find out the agency respondents worked for. According to the study results obtained, it was established that 34% of respondents worked in headquarter, 29% in North of Nairobi, 23% were working at West of Nairobi while 14% were working at East/South of Nairobi.

Table 4.3: Agency Working For

	Frequency	Percentage
Headquarter	82	34
North of Nairobi	69	29
West of Nairobi	56	23
East/South of Nairobi	33	14
Total	240	100

4.2.5 Working Duration

Respondents were also requested to indicate how long they had been working in their respective organizations. The study results obtained indicated that, 37% of respondents have been working at KRA for a period between 5-9 years, 28% have been working at KRA for a period of 9 years, and 22% have been working at KRA for a period of 2-5 years while 13% have been working at KRA for less than 2 years.

Table 4.4: Working Duration

	Frequency	Percentage
Below 2 years	32	13
2-5 years	53	22
5-9 years	89	37
Above 9 years	66	28
Total	240	100

4.3 Effect of Tax Reforms on External Public Debts

Respondents were requested to indicate the extent to which they agreed or disagreed with the statement that relating to effect of tax reforms on external public debts. Based on the study results obtained, it was established that respondents strongly agreed domestic taxes policy reform create a fully integrated and modern domestic tax administration with the key objectives of integrating domestic revenue administration as depicted by the mean score of 4.42. Respondents strongly agreed that introduction

of tax policy reforms helps in transforming and modernizing tax administration in accordance with internationally accepted conventional standards and best practices thus enhancing external public debt repayment as illustrated by the mean score of 4.38. Moreover, respondents agreed that the introduction of administrative tax reforms minimizing loop holes of tax evasion which are some of the factors that lead to improvements in tax revenue collections hence sustainable external public debt repayment and that Administrative tax reforms in Kenya continually reform the tax structure with the aim of improving the effectiveness and yield of taxation, as well as to ensure sustainable external public debt repayment as shown by the mean scores of 4.35 and 4.33 respectively. Finally, respondents agreed that technological tax reforms have streamlined tax operations to broaden tax bases and cushion tax evasion which has consequently increased tax collection as illustrated by mean score of 4.07.

Table 4.5 illustrates that the cumulative score for the tax reforms constructs as measured through questionnaire is 4.31. The collective scores rounded off to a score of 4 on the 5 point Likert scale espoused by the research. This shows that respondents agreed to each of the Likert items in the section. The aggregate standard deviation is 0.74 which is small relative to the possible highest variation from the mean response. This suggests that the respondents' responses were close to the collective score of 4. Therefore, the respondents on average agreed with the Likert items on tax reforms with those of differing opinion not being so far away from an agreement.

Based on the output obtained in this study, the average value for all the constructs obtained a negative value of skewness (-0.998). A negative skew value indicates that the tail on the left side of the distribution is longer than the right side and the bulk of the values lie to the right. On the other hand, a positive Kurtosis values was generated

in all constructs (1.468). This indicates that the values for asymmetry and kurtosis are acceptable to prove normal univariate distribution of the response given. This is supported by the skewness value which is less than -1 and -0.5 (-0.998), thus the distribution is highly skewed; the output also indicated that the distribution is moderately skewed since the skewness is between -1 and -0.5.

Table 4.5: Effect of Tax reforms on External Public Debts

	Min	Max	Mean	STDev	Var	Skewness	Kurtosis
The introduction of administrative tax reforms minimizing loop holes of tax evasion which are some of the factors that lead to improvements in tax revenue collections hence sustainable external public debt repayment	4	5	4.35	0.83	0.690	-1.790	4.160
Administrative tax reforms in Kenya continually reform the tax structure with the aim of improving the effectiveness and yield of taxation, as well as to ensure sustainable external public debt repayment	2	5	4.33	0.73	0.540	-1.120	1.490
Domestic taxes policy reform create a fully integrated and modern domestic tax administration with the key objectives of integrating domestic revenue administration	1	5	4.42	0.50	0.250	0.340	-1.920
Introduction of tax policy reforms helps in transforming and modernizing tax administration in accordance with internationally accepted conventional standards and best practices thus enhancing external public debt repayment	2	5	4.38	0.71	0.500	-1.260	2.180
Technological tax reforms have streamlined tax operations to broaden tax bases and cushion tax evasion which has consequently increased tax collection	1	5	4.07	0.95	0.900	-1.160	1.430
Aggregate	2	5	4.31	0.74	0.576	-0.998	1.468

4.4 Effects of Tax Strategies on External Public Debts

The study also sought to establish the extent to which respondents agreed or disagreed with the statement relating to effects of tax strategies on external public debts. Based on the study results obtained, respondents agreed that post audit and checks has improved trader compliance through reduced tax evasion mechanisms by traders involved in local and international trade as indicated by the mean score of 4.352. Respondents strongly agreed that the execution of tax automation system has boosted revenue collection in the country hence sustainable external public debt repayment as shown by the mean scores of 4.30. Additionally, respondents agreed that introduction of tax enforcement strategies has reduced incidences of tax evasion by local and international traders enhance sustainable external public debt repayment as indicated by the mean scores of 4.12. Inter-agency coordination has efficiently improved revenue collection and cut down national revenue leakages and enhances sustainable external public debt repayment as indicated by mean score of 4.02. Lastly, respondents moderately agreed that implementation of the operation strategies in DTD department has enhancing sustainable external public debt repayment as depicted by the mean score of 3.89.

The collective scores rounded off to a score of 4 on the 5 point Likert scale espoused by the research. This shows that respondents agreed to each of the Likert items in the section. The aggregate standard deviation is 0.82 which is small relative to the possible highest variation from the mean response. This implies that the respondents' responses closely clustered around the aggregate score of 4. This implies that responses in the tax resources were varied from the mean compared to those of the tax reforms. In this case, the narrow variation from the overall mean response confirms

that the respondents agreed that tax strategies play a major role in external public debts.

From the data obtained, all the responses with respect to effects of tax strategies on public debt repayment performance resulted to a negative skewness in average (-0.93). A negative skew indicates that the tail on the left side of the probability density function is longer than the right side and the bulk of the values lie to the right of the mean. All the questions that covered the aspects of tax strategies and its effect on external public debt repayment assumed a positive kurtosis value (0.79) in average. This means that the distribution is highly skewed towards strongly agreed scales and that the values for asymmetry and kurtosis are acceptable to prove normal univariate distribution of the response given.

Table 4.6: Tax Strategies

	Min	Max	Mean	STDev	Var	Skewness	Kurtosis
The execution of tax automation system has boosted revenue collection in the country hence sustainable external public debt repayment	2	5	4.30	0.78	0.61	-1.23	1.59
Implementation of the operation strategies in DTD department has enhancing sustainable external public debt repayment	2	5	3.89	1.03	1.07	-0.83	-0.42
Introduction of tax enforcement strategies has reduced incidences of tax evasion by local and international traders enhances sustainable external public debt repayment	2	5	4.12	0.89	0.78	-0.78	-0.08
Inter-agency coordination has efficiently improved revenue collection and cut down national revenue leakages and enhances sustainable external public debt repayment	2	5	4.02	0.91	0.83	-0.97	0.4
Post audit and checks has improved trader compliance through reduced tax evasion mechanisms by traders involved in local and international trade	1	5	4.35	0.73	0.53	-1.31	3.1
Aggregate	1.8	5	4.13	0.87	0.76	-1.02	0.918

4.5 Effect of Tax Resources on External Public Debts

The study also sought to establish the extent to which respondents agreed or disagreed with the statement relating to effect of tax resources on external public debts. Based on the study results obtained, it was found out that respondents strongly agreed that increase in corporate income tax collection enhances sustainability of external public debts repayment as depicted by the mean score of 4.61. In addition, respondents strongly agreed that Growth of Value Added Tax (VAT) revenue helps in public debts repayment as indicated by the mean score of 4.25. Also, respondents agreed that Corporate taxes paid by companies remain a key source of government revenues in sustaining external public debts repayment and that Pay As You Earn (PAYE) system

was introduced, where tax is charged on employment income and deducted at source, then submitted by the employer to the government to clear public debts as depicted by the mean scores of 4.16 and 4.14 respectively. Lastly, respondents moderately agreed that solving possible operational challenges jointly facilitate legitimate trade as shown by the mean score of 3.598.

Table 4.7 illustrates that the cumulative score for the tax reforms constructs as measured through questionnaire is 4.29. The collective scores rounded off to a score of 4 on the 5 point Likert scale espoused by the research. This shows that respondents agreed to each of the Likert items in the section. The aggregate standard deviation is 0.71 which is small relative to the possible highest variation from the mean response. This suggests that the respondents' responses were close to the collective score of 4. Therefore, the respondents on average agreed with the Likert items on tax resources with those of differing opinion not being so far away from an agreement.

Based on the output obtained in this study, the average value for all the constructs obtained a negative value of skewness (-0.12). A negative skew value indicates that the tail on the left side of the distribution is longer than the right side and the bulk of the values lie to the right. On the other hand, a positive Kurtosis value was generated in all constructs (0.63). This indicates that the values for asymmetry and kurtosis are acceptable to prove normal univariate distribution of the response given. This is supported by the skewness value which is less than -1 and -0.5 (-0.12), thus the distribution is highly skewed; the output also indicated that the distribution is moderately skewed since the skewness is between -1 and -0.5.

Table 4.7: Effect of Tax Resources on External Public Debts

	Min	Max	Mean	STDev	Var	Skewness	Kurtosis
Pay As You Earn (PAYE) system was introduced, where tax is charged on employment income and deducted at source, then submitted by the employer to the government to clear public debts	1	5	4.14	0.96	0.93	-1.13	0.66
Growth of Value Added Tax (VAT) revenue helps in public debts repayment	2	5	4.25	0.93	0.86	-1.33	1.04
Corporate taxes paid by companies remain a key source of government revenues in sustaining external public debts repayment	2	5	4.16	0.84	0.7	-1	0.75
Increase in corporate income tax collection enhances sustainability of external public debts repayment	3	5	4.61	0.55	0.31	-1.03	0.06
Aggregate	2	5	4.29	0.82	0.71	-0.12	0.63

4.6 External Public Debts

As the figure 4.2 shows, there is a sharp increase of external public debts from year 2013 to year 2019. The increase in external debt was largely due to growth in bilateral and multilateral debt. The change in overall debt composition show an aggregate rise in debt over the review period. Although total outstanding debt remains below the statutory debt ceiling, total debt including committed undisbursed balances is edging closer to the ceiling. The decline in the debt service ratios is attributed to reduced debt service obligations during the year under review. Kenya is one of the most indebted country in the sub-Saharan Africa at 53% of GDP. This shows if the situation persists

this trend may plunge the country into a debt crisis. This phenomenon is not good for economic growth of any country.

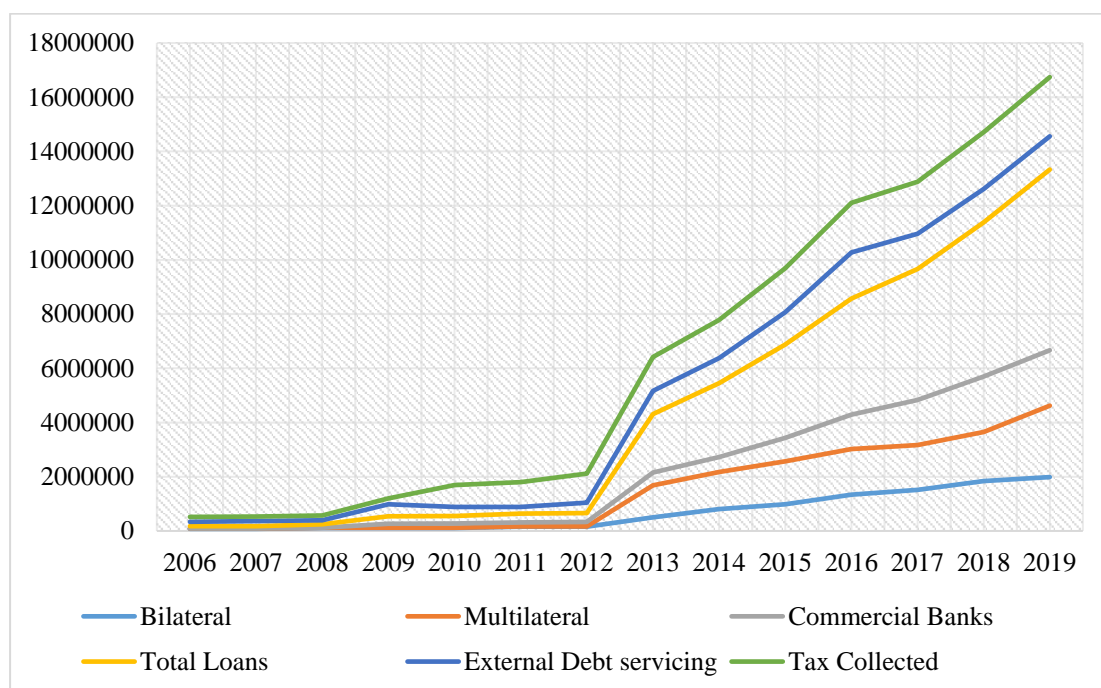


Figure 4.3: External Public Debts

4.7 Pre-estimation Diagnostics

4.7.1 Normality test

To confirm whether the data were distributed normally Kolmogorov-Smirnov Normality Test was conducted. In the statistics, the rule is that if the value of Asymp.Sig is greater than 0.05, then the data is normally distributed in that given research, and if the value of Asymp.Sig is less than 0.05, then the data is not normally distributed in that given research. From the study findings, Kolmogorov-Smirnov normality test was conducted and the value of each variable was obtained as shown in table 4.8. Based on the output obtained, we can conclude that the data is normally distributed in this study since all the variable produced a Asymp.Sig greater than 0.05.

Table 4.8: Normality Test

		One-Sample Kolmogorov-Smirnov Test^a			
		TaxRef	TaxStr	TaxRes	EPD
N		3	3	3	3
Normal Parameters ^{b,c}	Mean	3.6124	3.4874	3.4874	3.7093
	Std. Deviation	.00000	.00000	.00000	.00000 ^d
Most Extreme Differences	Absolute	.500	.500	.500	
	Positive	.500	.500	.500	
	Negative	-.500	-.500	-.500	
Kolmogorov-Smirnov Z		.866	.866	.866	
Asymp. Sig. (2-tailed)		.441	.441	.441	

a. taxRef=3.61, TaxStr=3.49, TaxRes=3.49

b. Test distribution is Normal.

c. Calculated from data.

d. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.

4.7.2 Test for Linearity

To test hypothesis, the study conducted linearity for each independent variable. This helped the study establish whether there is a significant relationship between the dependent and independent variables. ANOVAs are helpful as they possess an advantage over a two-sample t-test which might results in an increased chance of committing a type I error (error of rejecting a null hypothesis when it is actually true). To determine this relationship, when the Sig.value from linearity is greater than 0.005 the relationship between the independent variable and dependent variables are linearly dependent.

ANOVA for Tax Reforms

The study aimed to determine whether the relationship between the dependent variable and independent variable is linear or not. Linearity test is conducted to support the correlation and linear regression analysis. In this study, the study tested the linearity between tax reforms and external public debts, based on the output, tax

reforms had a Sig.value of 0.136 which is greater than 0.005. Thus, we can conclude that tax reforms have significant effect on external public debts in Kenya. Hence we reject null hypothesis; tax reforms have no significant effect on external public debts in Kenya.

Table 4.9: ANOVA for Tax Reforms

			Sum of Squares	df	Mean Square	F	Sig.
	Between	(Combined)	15.046	24	.627	1.358	.150
	Between	Linearity	.298	1	.298	.644	.424
TaxRef* ExtPD	Groups	Deviation from Linearity	14.748	23	.641	1.389	.136
Within Groups			44.781	97	.462		
Total			59.827	121			

ANOVA for Tax Strategies

The study tested the linearity between tax strategies and external public debts, based on the output; tax strategies had a value Sig.value of 0.309 which is greater than 0.05. Thus, we can conclude that there was linear relationship between the tax strategies and external public debts. Thus we reject null hypothesis and accept alternative hypothesis that there was significant relationship between the tax strategies and external public debts in Kenya.

Table 4.10: ANOVA for Tax Strategies

			Sum of Squares	df	Mean Square	F	Sig.
TaxStra* ExtPD	Between	(Combined)	1.633	23	.071	1.102	.357
	Groups	Linearity	.000	1	.000	.001	.981
		Deviation from Linearity	1.633	22	.074	1.152	.309
Within Groups			6.315	98	.064		
Total			7.948	121			

ANOVA for Tax Resources

The study also tested the relationship between tax resources and external public debts, based on the output; tax resources had a Sig.value of 0.016 which is greater than 0.005. Thus, we can conclude that there was linear relationship between the tax resources and external public debts. Hence we reject null hypothesis and accept alternative hypothesis that there was significant relationship between the tax resources and external public debts.

Table 4.11: ANOVA for Tax Resources

			Sum of		Mean		
			Squares	df	Square	F	Sig.
TaxRes*	Between	(Combined)	.154	23	.007	3.689	.000
ExtPD	Groups	Linearity	.077	1	.077	42.537	.000
		Deviation from Linearity	.077	22	.003	1.924	.016
	Within Groups		.178	98	.002		
Total			.333	121			

4.7.3 Test for Multicollinearity

According to Kumari (2008) the existence of a linear relationship among the independent variables is called multicollinearity. Multicollinearity can cause large forecasting error and make it difficult to assess the relative importance of individual variables in the model. This study opted for both the Variance Inflation Factor (VIF) and Tolerance to test for multicollinearity. The Tolerance Statistics values of below 0.10 ($1/vif < 0.10$) would indicate a problem with multicollinearity (Oscar, 2007). Based on the findings in table 4.4, the tolerance statistics values were above 0.10 indicating absence of a problem of multicollinearity. The study also opted for reciprocal of Tolerance also known as Variance Inflation Factor (VIF) to check for multicollinearity. The variance inflation factor shows how much the variance of the coefficient estimate is being inflated by multicollinearity (Belsley, Edwin & Roy,

1980). Therefore, a Variance Inflation Factor more than 10 ($vif > 10$) would indicate trouble with multicollinearity (Oscar, 2007). In relation to the VIF, all values for the three variables were below 10 another indication of the absence of the problem of multicollinearity.

Table 4.12: Test for Multicollinearity

Model	Unstandardized		Coefficients		t	Sig.	Collinearity	
	Coefficients		Coefficients				Statistics	
	B	Std. Error	Beta				Tolerance	VIF
(Constant)	-.917	.850			-1.080	.300		
Tax reforms	.884	.297	.644		2.981	.011	.435	2.300
Tax strategies	.306	.259	.258		1.180	.259	.423	2.365
Tax resources	.099	.120	.137		.824	.425	.729	1.371

a. Dependent Variable: Eternal Public Debts

Source: Researcher (2020)

4.7.4 Test for Heteroscedasticity

In this study, Heteroskedasticity was conducted to examine the whether there is a difference in the residual variance of the observation compared to one another. Based on the result obtained the value of sig. of tax reforms obtained was 0.601, the sig. of tax strategies variable is 0.018, the sig. of tax resources variable is 0.605. Since sig. value of the variables is greater than 0.05 for the two variables, that is, tax reforms and tax resources, we can conclude that there is no Heteroskedasticity problem. However, since the sig. value for tax strategies (0.018) is less than 0.05, we can conclude that there was Heteroskedasticity problem in that item.

Table 4.13: Test for Heteroscedasticity

		Coefficients^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.914	.357		2.558	.012
	Tax reforms	.039	.074	.049	.524	.601
	Tax strategies	-.164	.068	-.238	-2.395	.018
	Tax resources	-.035	.068	-.049	-.518	.605

a. Dependent Variable: Absut
Source: Researcher (2020)

4.8 Inferential Statistics

4.8.1 Correlations Analysis

Correlation is a statistical measure that determines the relationships between two or more variables or sets of variables. The correlation analysis also shows the direction of the relationship between the variables and the magnitude. In this study, Karl Pearson's coefficient of correlation (r) was used. The results show a positive correlation between tax reforms and external public debts as indicated by Pearson's correlation value=0.071. There was a positive relationship between tax strategies and external public debts as shown by Pearson's correlation value =0.464. In addition, a positive correlation was established between tax resources and external public debts as shown by Pearson's correlation value=0.719.

Table 4.14: Correlation Analysis

		Correlations			
		ExtPd	TaxRef	TaxSt	TaxRes
ExtPd.	Pearson Correlation	1	.071	.464**	.719**
	Sig. (2-tailed)		.440	.000	.000
TaxRef	Pearson Correlation	.071	1	.303**	.052
	Sig. (2-tailed)	.440		.001	.574
TaxSt	Pearson Correlation	.464**	.303**	1	.334**
	Sig. (2-tailed)	.000	.001		.000
TaxRes	Pearson Correlation	.719**	.052	.334**	1
	Sig. (2-tailed)	.000	.574	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

4.8.2 Model Summary

The researcher also carried out a regression analysis in order to establish whether there was any significant relationship between independent and dependent variables. According to the study results obtained, the correlation of determination (R^2) was established to be 57.8% of the external public debts in Kenya. This means that the three independent variables studied that is tax reforms, tax strategies and tax resources contributes to 57.8% of the external public debts in Kenya while others not covered in this study contributes to 42.2% of the external public debts.

Table 4.15: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.760 ^a	.578	.567	.46448

a. Predictors: (Constant), TaxRef, TaxSt, TaxRes

b. Dependent Variable: ExtPD

4.8.3 ANOVA

When testing the hypothesis, ANOVA, the F-ratio is the statistic used to test the hypothesis that the effects are real: in other words, that the means are significantly different from one another. Before the details of the hypothesis test may be

presented, the sampling distribution of the F-ratio must be discussed (Saunders *et al.*, 2009). The F calculated value was obtained as 58.350 while F-critical value was obtained to be (2.70). Since F-calculated is greater than F-critical indicating that there is relationship between tax mobilization and external public debts, further since significant (000) is less than 0.05 an indication that there is significant relationship between the two variables.

Table 4.16: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	35.823	3	11.941	58.350	.000
Residual	23.943	117	.205		
Total	59.766	120			

a. Dependent Variable: ExtPD

b. Predictors: (Constant), TaxRef, TaxSt, TaxRes

4.8.4 Regression Coefficient

Multiple regression analysis was conducted so as to determine the relationship between tax mobilization and the three independent variables being studied. Based on the above results, the following regression model was established:

$$Y = 1.308 + 0.558X_1 + 0.731X_2 + 0.620X_3 + e$$

Table 4.17: Regression Model

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
Constant	1.308	1.342		1.623	.357
Tax reforms	0.558	0.310	0.172	4.342	.0276
Tax strategies	0.731	0.156	0.210	3.532	.0285
Tax resources	0.620	0.245	0.148	3.458	.0249

According to the regression equation above, it was established that, holding all the other factors constant, a unit change in tax reforms will lead to a 0.558 positive effect

on external public debts in Kenya, a unit change in tax strategies will lead to a 0.731 positive effect on external public debts in Kenya while a unit change in tax resources will lead to a 0.620 positive change in external public debts in Kenya respectively. From the data, that none of the B coefficients are 0, meaning that each of the three independent variables have some relationship to external public debts, when the effects of the others are controlled. There was a positive impact of tax reforms, tax strategies and tax resources on external public debts. Furthermore, for tax reforms, tax strategies and tax resources the t-statistic is significant ($p < .05$) thus one can generalize the results as produced from the data that was collected from population sample that was drawn for this study. The data collected from the sampled respondents is significant at t-statistic, hence it can be used to explain the effect of tax mobilization on external public debts.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents the discussion, conclusion and recommendations of key data findings on the effect of tax mobilization and external public debts in Kenya. Therefore, this chapter is structured into summary of the study findings, conclusion and recommendations drawn thereafter. Suggestions for further study are also captured as a way of filling the gaps identified in the study.

5.2 Summary of Study Findings

On effect of tax reforms on external public debts, it was found out that domestic taxes policy reform creates a fully integrated and modern domestic tax administration with the key objectives of integrating domestic revenue administration. Likewise, the study established that introduction of tax policy reforms helps in transforming and modernizing tax administration in accordance with internationally accepted conventional standards and best practices thus enhancing external public debt repayment. The study established that tax reforms had a value Sig.value of .136 which is greater than 0.05. Thus, tax reforms have significant effect on external public debts in Kenya. The results show a positive correlation between tax reforms and external public debts as indicated by Pearson correlation value=0.071.

To the objective of effects of tax strategies on external public debts, the study established that post audit and checks has improved trader compliance through reduced tax evasion mechanisms by traders involved in local and international trade. Likewise, the execution of tax automation system has boosted revenue collection in the country hence sustainable external public debt repayment. The study also

established that tax strategies had a value Sig.value of 0.309 which is greater than 0.05. Thus, we can conclude that there was linear relationship between the tax strategies and external public debts. The study found that there was significant relationship between the tax strategies and external public debts in Kenya. The study established that there was positive correlation was established between tax strategies and external public debts as shown by Pearson correlation value=0.464.

On the effect of tax resources on external public debts, the study revealed that increase in corporate income tax collection enhances sustainability of external public debts repayment. Growth of Value Added Tax (VAT) revenue helps in public debts repayment. The study also found that Corporate taxes paid by companies remain a key source of government revenues in sustaining external public debts repayment and that Pay As You Earn (PAYE) system was introduced, where tax is charged on employment income and deducted at source, then submitted by the employer to the government to clear public debts. The study also established that tax resources had a Sig.value of 0.016 which is greater than 0.005. Thus, we can conclude that there was linear relationship between the tax resources and external public debts. As such there was significant relationship between the tax resources and external public debts. The study also revealed that there was a positive correlation was established between tax resources and external public debts as shown by Pearson correlation value=0.719.

The study also found that debts obligations the main priority given from tax collected as part of reserving external public debts. Some of the key indicators that enhance effective external public debt servicing is economic growth and foreign exchange. In general, the study found that the data is normally distributed in this study since all the variable produced a Asymp.Sig greater than 0.05. On testing multicollinearity, all

values for the three variables were below 10 another indication of the absence of the problem of multicollinearity. value of the variables is greater than 0.05 for the two variables, that is, tax reforms and tax resources, we can conclude that there is no Heteroskedasticity problem. However, since the sig. value for tax strategies (0.018) is less than 0.05, we can conclude that there was Heteroskedasticity problem in that item. The correlation of determination (R^2) was established to be 57.8% of the external public debts in Kenya.

5.3 Discussion of Study Findings

5.3.1 Effect of Tax Reforms on External Public Debts

The study results found out that respondents agreed that domestic taxes policy reform create a fully integrated and modern domestic tax administration with the key objectives of integrating domestic revenue administration. Introduction of tax policy reforms helps in transforming and modernizing tax administration in accordance with internationally accepted conventional standards and best practices thus enhancing external public debt repayment. The study also generated a positive Kurtosis values in all constructs (1.468). This indicates that the values for kurtosis are acceptable to prove normal univariate distribution of the response given. Thus, established that tax reforms have significant effect on external public debts in Kenya. Hence we reject null hypothesis; tax reforms have no significant effect on external public debts in Kenya.

5.3.2 Effects of Tax Strategies on External Public Debts

The study findings obtained indicated that post audit and checks has improved trader compliance through reduced tax evasion mechanisms by traders involved in local and international trade. Respondents also agreed that the execution of tax automation system has boosted revenue collection in the country hence sustainable external

public debt repayment. All the questions that covered the aspects of tax strategies and its effect on external public debt repayment assumed a positive kurtosis value (0.79) in average. This means that the distribution is highly skewed towards strongly agreed scales and that the values for asymmetry and kurtosis are acceptable to prove normal univariate distribution of the response given. The study also revealed that there was linear relationship between the tax strategies and external public debts. Thus we reject null hypothesis and accept alternative hypothesis that there was significant relationship between the tax strategies and external public debts in Kenya.

5.3.3 Effect of Tax Resources on External Public Debts

From the study findings obtained, it was established that respondents strongly agreed that increase in corporate income tax collection enhances sustainability of external public debts repayment. The study also established that Growth of Value Added Tax (VAT) revenue helps in public debts repayment. The study obtained a positive Kurtosis values in all constructs of tax resources (0.63). This indicates that the values for asymmetry and kurtosis are acceptable to prove normal univariate distribution of the response given. Increase in tax collected results to higher external public debt servicing. This phenomenon is not good for economic growth of any country. Thus, established that there was linear relationship between the tax resources and external public debts. Hence we reject null hypothesis and accept alternative hypothesis that there was significant relationship between the tax resources and external public debts. Conclusively, the study established that the data is normally distributed in this study since all the variable produced a Asymp.Sig greater than 0.05. In testing the presence multicollinearity problem, the study adopted both VIF and tolerance, VIF values for all three variables were below 10 another indication of the absence of the problem of multicollinearity while the tolerance statistics values were above 0.10 indicating

absence of a problem of multicollinearity. In testing Heteroskedasticity test, the study established that since sig. value of the variables is greater than 0.05 for the two variables, that is, tax reforms and tax resources, we can conclude that there is no Heteroskedasticity problem. However, since the sig. value for tax strategies (0.018) is less than 0.05, we can conclude that there was Heteroskedasticity problem in that item.

5.3.4 External Public Debts

The study established that most of the tax collected is utilized to service external public debts such as Multilateral, Bilateral and commercial banks debts. The tax was used to service commercial bank loan borrowed externally, followed by those sourced from multilateral and then bilateral loans.

5.4 Conclusion

The study concludes that tax reforms have significant effect on external public debts in Kenya. Thus, we reject null hypothesis; tax reforms have no significant effect on external public debts in Kenya. The results show a positive correlation between tax reforms and external public debts as indicated by Pearson correlation value=0.071.

The study also concludes that there was linear relationship between the tax strategies and external public debts. Thus we reject null hypothesis and accept alternative hypothesis that there was significant relationship between the tax strategies and external public debts in Kenya. The study established that there was positive correlation between tax strategies and external public debts as shown by Pearson correlation value=0.464.

The study revealed that that there was linear relationship between the tax resources and external public debts. Thus, the study reject null hypothesis and accept alternative

hypothesis that there was significant relationship between the tax resources and external public debts. The study also concludes that there was a positive correlation was established between tax resources and external public debts as shown by Pearson correlation value=0.719.

Conclusively, the study concludes that the data is normally distributed. On testing multicollinearity, the study concludes that there is absence of the problem of multicollinearity. In two variables, that is, tax reforms and tax resources, we can conclude that there is no Heteroskedasticity problem. However, the study concludes that in tax strategies there was Heteroskedasticity problem in that item. The correlation of determination (R^2) was established to be 57.8% of the external public debts in Kenya. The study established that there is positive correlation between the independents variables (tax reforms, tax strategies and tax resources) and dependent variable. The three variables that the study focused on contributes 57.8% to external public debts. Thus other factors that were not covered in this contributed 42.2% to the external public debts. The study also established that F-calculated (58.350) is greater than F-critical (2.70) indicating that there is relationship between tax mobilization and external public debts, further since significant (000) is less than 0.05 an indication that there is significant relationship between the two variables.

5.5 Recommendation

The study recommends that governments need to be careful and should undertake in-depth analysis to find the optimal taxation level for society. This is necessary to set a reasonable tax rate range that allows their change and flexibility to meet Budgetary Limitation and Public Debt Sustainability as a result of shocks unfavorable economic reasons for various reasons.

The study also recommends that one of the key important aspects that can help to improve public revenue growth is the involvement of individuals and their government's willingness to convince the tax that each of us pays to serve the growth of public goods that will be realized in the future. Although such concepts have begun to be applied, the transparency process for the state budget as the country's most important financial plan is almost inexact, and even more so for countries characterized by a high level of corruption, has eliminated any real opportunities of individuals' perceptions and expectations positively correlated between taxes and public goods that are benefited.

The efficient use of public money to bring fiscal policy to gradual and healthy improvement of macroeconomic indicators, the efficient use of public money will be guaranteed by: strengthening the implementation of financial discipline in managing public funds through continuous monitoring and oversight and prudent spending unit activities.

The study also recommends that one of the best ways to reduce the budget deficit as a% of GDP is to promote economic growth. If the economy grows, then the government will increase tax revenue without raising taxes. With economic growth, people pay more VAT, companies pay more corporation tax (profit tax), and workers' pay more income taxes. High economic growth is the least painful way to reduce the budget deficit because you do not need to raise tax rates or cut spending. However, many countries with fiscal deficit crises often remain in recession

5.6 Suggestions for Further Study

The key aim of this study was to examine effect of tax mobilization and external public debts in Kenya. The study therefore recommends that further study need to be

undertaken to examine the effect of tax collection on external public debts repayment in Kenya. The study found that the three independent variables that were studied in this research contributes 57.8% to external public debts, thus there is need to conduct a study on the other factors that constitutes 42.2%. This will give a clear picture on how the tax collected is used to service the loan.

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APPENDICES

Appendix I: Research Questionnaire

Instructions

Kindly do not indicate your name in the questionnaire.

Tick your answer in the options (brackets) provided.

Section A: Demographics

1. What is your gender?

Male [] Female []

2. What is your age category?

25yrs and below [] 26-35yrs [] 36-45yrs [] 46 yrs. and above []

3. What is your highest educational level?

Diploma [] Higher Diploma [] Undergraduate Degree []

Post Graduate Degree [] Masters [] Other _____

4. Indicate the station of working?

Headquarter [] North of Nairobi []

West of Nairobi [] East/South of Nairobi []

5. How long have you been working at the department?

>1 year [] 1-5 years [] 6-10 years [] 11-15 years [] Over 15 years []

Section B: Effect of Tax Mobilization on External Public Debts in Kenya

6. The questions below relate to effect of tax mobilization on external public debts in Kenya. Kindly rate the extent to which you agree or disagree with the statements in the questions provided. Use this scale: 5 = Strongly agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree.

Tax reforms	5	4	3	2	1
The introduction of administrative tax reforms minimizing loop holes of tax evasion which are some of the factors that lead to improvements in tax revenue collections hence sustainable external public debt repayment					
Administrative tax reforms in Kenya continually reform the tax structure with the aim of improving the effectiveness and yield of taxation, as well as to ensure sustainable external public debt repayment					
Domestic taxes policy reform create a fully integrated and modern domestic tax administration with the key objectives of integrating domestic revenue administration					
Introduction of tax policy reforms helps in transforming and modernizing tax administration in accordance with internationally accepted conventional standards and best practices thus enhancing external public debt repayment					
Technological tax reforms have streamlined tax operations to broaden tax bases and cushion tax evasion which has consequently increased tax collection					
Tax strategies	5	4	3	2	1
The execution of tax automation system has boosted revenue collection in the country hence sustainable external public debt repayment					
Implementation of the operation strategies in DTD department has enhancing sustainable external public debt repayment					
Introduction of tax enforcement strategies has reduced incidences of tax evasion by local and international traders enhances sustainable external public debt repayment					
Inter-agency coordination has efficiently improved revenue collection and cut down national revenue leakages and enhances sustainable external public debt repayment					
Post audit and checks has improved trader compliance through					

reduced tax evasion mechanisms by traders involved in local and international trade					
Tax resources	5	4	3	2	1
Pay As You Earn (PAYE) system was introduced, where tax is charged on employment income and deducted at source, then submitted by the employer to the government to clear public debts					
Growth of Value Added Tax (VAT) revenue helps in public debts repayment					
Corporate taxes paid by companies remain a key source of government revenues in sustaining external public debts repayment					
Increase in corporate income tax collection enhances sustainability of external public debts repayment					

The End

Thank You

Appendix II: Work Plan

Activity	May 2019	June 2019	July 2019	August 2019	Sept 2019	Oct 2019
Prepare and submit project proposal						
Receiving comments by supervisor						
Incorporation of comments						
Resubmission of proposal						
Data collection, processing, analysis and report						
Incorporation of comments and resubmission of final report						

Appendix III: Activity Budget

Activity	Amount in Kenya Shillings (Kshs)
Development of research proposal	5,000
Development of tools for data collection and circulation of data collection instruments	10,000
Data entry and analysis	15,000
Report writing, editing and project finalization	10,000
Printing copies of final report and binding	10,000
Total Estimated Cost	50,000

Appendix IV: Secondary Data Checklist

REVENUE COLLECTED IN THE PERIOD 2010/11 - 2019/2020 - KSHS MILLION




ITEM	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
CUSTOMS AND BORDER CONTROL										
<i>Exchequer</i>										
Gross Import Duty	46,023	52,153	58,137	66,896	74,033	81,266	87,161	93,917	105,413	98,342
Refunds	240	240	240	300	300	300	300	204	204	192
Net Import Duty	45,783	51,913	57,897	66,596	73,733	80,966	86,861	93,713	105,209	98,150
Import Duty-Ordinary	44,860	50,944	56,734	65,580	72,346	79,372	85,532	92,076	103,511	96,494
Import Duty-Oil	923	969	1,163	1,016	1,387	1,595	1,329	1,638	1,698	1,656
Gross Excise Duty	45,876	41,743	45,855	53,968	60,262	72,108	81,698	85,927	89,176	89,434
Refunds	2,400	2,400	2,400	2,400	2,400	2,400	2,500	2,400	720	630
Net Excise Duty	43,476	39,343	43,455	51,568	57,862	69,708	79,198	83,527	88,456	88,804
Excise Duty-Domestic										
Excise Duty- Imports	8,016	8,584	10,307	13,151	15,175	18,096	19,696	22,311	24,622	23,739
Excise Duty-Oil	35,459	30,759	33,148	38,416	42,687	51,611	59,502	61,216	63,834	65,065
VAT Imports	81,395	94,352	94,685	125,177	135,637	131,473	143,491	151,678	179,179	167,914
VAT-Ordinary Imports	74,535	85,744	88,023	114,556	127,744	125,105	137,232	144,035	157,496	146,482
VAT-Oil Imports	6,860	8,608	6,661	10,621	7,894	6,368	6,260	7,643	7,189	5,506
VAT-Oil Imports (at 8%)									14,494	15,926
Anti-adulteration Levy									2,299	2,762
Import Declaration Fees	20,467	24,846	24,270	26,627	27,119	25,851	24,486	26,189	26,782	33,560
Railway Development Levy				19,721	18,940	17,273	18,903	20,780	21,303	23,258
Sub-Total Exchequer	191,120	210,454	220,307	289,689	313,291	325,272	352,939	375,888	423,228	414,448
<i>Agency</i>										
Aiport Revenue	3,026	3,460	6,281	6,837	6,619	6,570	11,199	10,414	12,291	11,176
Aviation Revenue	2,428	3,178	3,589	3,468	3,565	4,122	4,854	4,819	5,912	4,860
Petroleum Development Levy	1,570	1,595	1,702	1,794	1,817	1,974	2,168	2,262	2,165	2,044
Road Maintenance Levy	24,101	24,184	25,002	28,163	30,890	45,407	69,557	73,668	78,160	74,458

K.A.A Concession Fees	84	89	99	106	113	114	127	131	134	120
Road Transit Toll	468	591	546	495	562	674	737	766	840	912
Sugar Levy	237	258	266	114	295	288	35	2	0	0
Petroleum Regulatory Levy	135	136	143	158	301	485	498	521	1,087	1,073
Merchant Superintendent Shipping Levy	99	118	576	757	820	934	1,328	1,512	1,454	1,535
Miscellaneous	199	196	206	250	150	161	83	86	66	6
Sub-Total Agency	32,348	33,804	38,408	42,142	45,132	60,731	90,585	94,180	102,110	96,182
TOTAL C&BC	223,468	244,258	258,715	331,831	358,424	386,002	443,524	470,068	525,338	510,630
DOMESTIC TAXES DEPARTMENT										
<i>Exchequer</i>										
PAYE	143,785	175,141	211,061	252,974	277,068	312,032	336,596	364,104	392,693	400,508
Individual	4,698	5,575	5,355	6,033	7,154	8,821	8,179	7,191	8,916	8,672
Corporation Tax	86,352	94,643	110,626	135,971	126,541	152,407	180,162	160,059	168,783	175,843
Other Taxes										
Advance tax	851	1,073	1,461	1,725	2,064	2,653	1,993	4,243	1,172	1,274
Withholding Tax	36,768	52,544	65,354	56,816	92,678	82,690	97,009	100,623	105,256	121,511
Capital Gains					636	3,811	2,419	16,640	2,951	4,484
Rental Income						2,033	4,007	6,058	8,584	10,145
Turnover Tax	130	145	185	166	630	385	102	103	88	24
Betting/ lotteries tax									3,242	1,960
Presumptive Tax									-	9
Surplus Funds									10,067	32,627
Sub-Total Other Taxes	128,800	153,980	182,981	200,710	229,702	252,799	293,870	294,917	309,059	356,550
VAT-Gross	103,300	93,371	101,446	123,068	143,922	174,051	206,545	219,499	244,748	228,515
<i>o/w Withholding VAT</i>					6,890	34,355	72,043	97,771	113,868	76,634
Refunds	13,016	12,935	12,912	14,688	14,688	14,681	13,464	14,400	14,400	14,400
VAT-Net	90,284	80,436	88,534	108,380	129,234	159,370	193,081	205,099	230,348	214,115
Excise Duty-Domestic	28,573	30,878	33,260	35,855	38,246	48,986	55,499	53,011	59,509	55,721
Excise on Airtime	7,796	8,984	11,315	12,302	13,122	14,884	15,964	15,626	25,120	28,841

Excise on Financial Services				4,973	5,722	9,013	12,575	15,898	22,646	24,351
Excise Tax on Betting Services										2,045
Betting Tax										
Stamp Duty	6,805	7,891	8,594	10,069	11,579	10,417	8,615	12,143	9,947	9,105
Land Rent	913	1,123	1,076	1,071	1,045	1,201	861	601	588	474
Sub-Total Exchequer	406,956	458,433	536,820	626,335	705,718	808,702	917,061	961,399	1,049,911	1,091,709
Agency										
KEBS	430	412	464	496	475	475	501	491	511	516
Sugar Levy	1,401	1,490	1,460	1,471	1,034	1,069	80	14		-
Housing Levy										0.1
Sub-Total Agency	1,831	1,902	1,923	1,966	1,508	1,543	581	506	511	516
Gross Receipts	421,803	473,270	551,656	642,989	721,915	824,926	931,107	976,305	1,064,822	1,106,625
TOTAL DTD	408,787	460,335	538,744	628,301	707,227	810,245	917,643	961,905	1,050,422	1,092,225
TRANSPORT REVENUE										
Exchequer	2,111	2,210	2,384	2,959	2,964	2,859	3,060	2,961	3,834	3,595
Agency	537	557	643	732	982	1,052	1,042	405	468	415
TOTAL TRD	2,648	2,767	3,027	3,691	3,947	3,911	4,102	3,366	4,302	4,010
Grand Total	634,903	707,360	800,486	963,823	1,069,597	1,200,159	1,365,269	1,435,338	1,580,062	1,606,865
o/w Exchequer	600,187	671,098	759,511	918,982	1,021,974	1,136,833	1,273,060	1,340,248	1,476,972	1,509,751

Source; The national treasury

Appendix V: Research Permit

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
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